PMH Learning Community

Capstone Event

December 8, 2021
10 AM – 2:30 PM
Everyone is automatically muted upon entry. You can unmute yourself when you wish to speak.

We’d like to see you on video!

Use “Chat” to make comments or ask questions.

Speaker View: large view of the person currently speaking.

Gallery View: images of all attendees in smaller individual squares.
Today’s Agenda

10:00   Welcome & Introductions
10:15   Review of learnings
11:00   Hospital panel
11:45   Personal story
12:00   Break
12:20   Networking & breakout groups
12:45   Keynote: Psychopharmacology & PMH
1:45    Celebration & recognition
2:00    Resources for continued learning
2:30    Adjourn
Capstone Event Objectives

• Review key learnings on perinatal mental health and care
• Discuss hospital-based best practices in safeguarding maternal mental health
• Discuss integration of multidisciplinary team members in maternal mental health screening, assessment and referral
• Review key guidelines for medication use during pregnancy and postpartum
• Celebrate your successes over the past 2 years!
• Community Partners FBO Maternal Mental Health NOW is approved by the American Psychological Association (APA) to sponsor continuing education for psychologists. Community Partners FBO Maternal Mental Health NOW maintains responsibility for this program and its content. This course meets criteria for 4.0 continuing education credits for behavioral health professionals.

• HQI is an approved continuing education (CE) provider by the California Board of Registered Nursing (BRN), Provider number CEP16793. This program is approved for 3.0 contact hours.

• Two separate links to the respective qualifying program evaluations will be posted in the chat near the end of the program. Those who want CE credits must type their names into the chat box to confirm attendance.
• It requires all birthing hospitals in California to provide education and information to postpartum people and their families about maternal mental health conditions, post-hospital treatment options, and community resources.

• All regular staff in labor and delivery departments (e.g. registered nurses and social workers) must receive education and information about maternal mental health disorders.

• Hospitals can offer additional services to ensure optimal care.

Law became effective on January 1, 2020.
The End of a Two-Year Journey
Education and Technical Assistance (Feb ’20 - Dec ’21)

- Group Office Hours (2020: Mar, May, Jul, Sept, Nov; 2021: Jan, Mar, May, Jul, Sept)
  - 1:1 Technical Assistance (on demand)
  - Capstone Event: Dec 8, 2021

Training Tools and Resources (Apr ‘20 – Dec ‘21)

• E-learning module and quick reference guide for staff
• E-learning module for patients
• Brochure template
Perinatal Mental Health Learning Community

The Perinatal Mental Health (PMH) Learning Community provides California hospitals with education, technical assistance, and peer support to strengthen perinatal mental health. The program assists hospitals to comply with Assembly Bill 3032, the Maternal Mental Health Conditions law. The program is administered by HQI, funded by California HealthCare Foundation and delivered in collaboration with Maternal Mental Health NOW and CommonSpirit Health.
Our Team

Anna King
Clinical Training Specialist, Maternal Mental Health NOW

Gabrielle Kaufman
Clinical Director, Maternal Mental Health NOW

Kelly O’Connor-Kay
Executive Director, Maternal Mental Health NOW

Barbara Sheehy
System Director, Perinatal Behavioral Health CommonSpirit Health

Julia Slininger
Program Manager, PMH Learning Community Hospital Quality Institute

Boris Kalanj
Director of Programs, Hospital Quality Institute
Types of Patient Education Resources Hospitals Offer

- **Verbal Information**: 91% in March 2020, 100% in Dec 2021
- **Brochures**: 81% in March 2020, 94% in Dec 2021
- **Online Resources**: 41% in March 2020, 76% in Dec 2021
- **Posters/Displays**: 27% in March 2020, 47% in Dec 2021
- **Apps**: 18% in March 2020, 24% in Dec 2021

March 2020 vs Dec 2021
% of Patients Receiving Education Prior to Discharge

• In the "pre" survey 47% of respondents said their hospital reliably tracks which patients have received education about perinatal mental health disorders.

  83% reliably track as of 12/2021

• In the "pre" survey", among those who tracked, 85% say that “most” or “all” patients receive some form of education.

  89% “most or all” as of 12/2021
Types of Employee Education Hospitals Offer

**March 2020**
- Signs and Symptoms of PMH Disorders: 73%
- How to Screen for PMH Disorders: 70%
- How to Refer, and Referral Resources: 58%
- How to Talk with Patients about PMH Disorders: 34%

**Dec 2021**
- Signs and Symptoms of PMH Disorders: 100%
- How to Screen for PMH Disorders: 94%
- How to Refer, and Referral Resources: 76%
- How to Talk with Patients about PMH Disorders: 47%
## Screening and Referral

<table>
<thead>
<tr>
<th>Question</th>
<th>Mar 2020</th>
<th>Dec 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital screens women in the perinatal period for mental health disorders?</td>
<td>82%</td>
<td>98%</td>
</tr>
<tr>
<td>Hospital has written procedures and protocols in place about screening and referrals?</td>
<td>36%</td>
<td>66%</td>
</tr>
<tr>
<td>Hospital reviews data on screening rates?</td>
<td>31%</td>
<td>59%</td>
</tr>
<tr>
<td>Screening Tool</td>
<td>March 2020</td>
<td>Dec 2021</td>
</tr>
<tr>
<td>---------------</td>
<td>------------</td>
<td>----------</td>
</tr>
<tr>
<td>EPDS</td>
<td>76%</td>
<td>89%</td>
</tr>
<tr>
<td>PHQ2</td>
<td>8%</td>
<td>4%</td>
</tr>
<tr>
<td>PHQ9</td>
<td>23%</td>
<td>11%</td>
</tr>
<tr>
<td>GAD7</td>
<td>3%</td>
<td>2%</td>
</tr>
<tr>
<td>OTHER</td>
<td>17%</td>
<td>7%</td>
</tr>
</tbody>
</table>
Review of Learnings
The Impact of COVID-19 on Maternal Mental Health

Staff Training and Patient Education

Referrals & Community Resources

Disparities in Perinatal Mental Health and Care

Supporting Patients with Perinatal Loss

Supporting NICU Families

Birth Trauma and Perinatal Mental Health

Substance Use Disorders & Perinatal Mental Health

Child Abuse Reporting & Perinatal Mental Health

Breastfeeding & Perinatal Mental Health

Fathers and Partners & Perinatal Mental Health
Impact of a pandemic on PMADS:
- Increase in fear and worry about baby’s health (and own health)
- Increase in obsessive/compulsive disorders due to worries about contagion
- Increase in isolation, loneliness and depression
- Increase in exposure to intimate partner violence
- Decrease in in-person prenatal care
- Concerns about hospital birth, visitors, possible separation from baby

Tips for management of COVID19 stressors:
- March of Dimes Birth Preferences
- Advocate for self and baby
- Find virtual resources including support groups
- Decrease doom scrolling
The Impact of COVID-19 on Maternal Mental Health

Staff Training and Patient Education

Referrals & Community Resources

Disparities in Perinatal Mental Health and Care

Supporting Patients with Perinatal Loss

Supporting NICU Families

Birth Trauma and Perinatal Mental Health

Substance Use Disorders & Perinatal Mental Health

Child Abuse Reporting & Perinatal Mental Health

Breastfeeding & Perinatal Mental Health

Fathers and Partners & Perinatal Mental Health
Staff Training and Patient Education

June/July 2020 – Barbara Sheehy, MS - Tomi Gibb, BSN - Dr. Eynav Accortt

Staff & Providers

• Offer online, virtual & in-person training to raise awareness, motivate & personalize MMH
• Check-in regularly, address barriers, help staff to become comfortable providing patient education, screening & referral
• Gather & share data to drive improvement

Patients

• Ensure understanding of MMH risk, signs & symptoms & where to seek help
The Impact of COVID-19 on Maternal Mental Health

Staff Training and Patient Education

Referrals & Community Resources

Disparities in Perinatal Mental Health and Care

Supporting Patients with Perinatal Loss

Supporting NICU Families

Birth Trauma and Perinatal Mental Health

Substance Use Disorders & Perinatal Mental Health

Child Abuse Reporting & Perinatal Mental Health

Breastfeeding & Perinatal Mental Health

Fathers and Partners & Perinatal Mental Health
August/September 2020 – Melissa Bentley, Postpartum Support International

• Build a **community resource list** that includes county 211, behavioral health centers, mental health clinicians, support groups and suicide prevention hotlines

• Support **successful linkage to treatment** by providing psychoeducation, making initial phone calls, facilitating warm handoffs and following up with patient when possible

• **Postpartum Support International Warmline**: 1-800-844-4773 (hotline coming February 2022)

• **In the event of a perinatal mental health emergency**: Women's Specialty Inpatient Psychiatric Unit at Scrivner Center for Mental Health & Addiction Services, El Camino Hospital.
Review of Learnings

The Impact of COVID-19 on Maternal Mental Health

Staff Training and Patient Education

Referrals & Community Resources

Disparities in Perinatal Mental Health and Care

Supporting Patients with Perinatal Loss

Supporting NICU Families

Birth Trauma and Perinatal Mental Health

Substance Use Disorders & Perinatal Mental Health

Child Abuse Reporting & Perinatal Mental Health

Breastfeeding & Perinatal Mental Health

Fathers and Partners & Perinatal Mental Health
Disparities in Perinatal Mental Health Care

October/November 2020 – Wenonah Valentine, MBA

• Implicit bias in the reproductive healthcare system leads to disparities
  – Power imbalance  – Dismissed needs  – Provider mistrust

• High rates of mortality, morbidity, and mental health concerns

• Cultural humility is one antidote
  – Lifelong journey  – Not the same as cultural competence

• Tools and interventions:
  – Built trust
    • Patient is the expert of their own experience
    • Suspend judgment and avoid making assumptions
  – Rethink threshold scores on screening tools
  – Mitigate barriers
  – Access community wisdom

• Combat compassion fatigue with provider self-care

• iD.R.E.A.M. For Racial Health Equity & Cherished Futures
Review of Learnings

The Impact of COVID-19 on Maternal Mental Health

Staff Training and Patient Education

Referrals & Community Resources

Disparities in Perinatal Mental Health and Care

Supporting Patients with Perinatal Loss

Supporting NICU Families

Birth Trauma and Perinatal Mental Health

Substance Use Disorders & Perinatal Mental Health

Child Abuse Reporting & Perinatal Mental Health

Breastfeeding & Perinatal Mental Health

Fathers and Partners & Perinatal Mental Health
Miscarriage:
- Within 20 weeks of pregnancy
- Often in first trimester
- May require medication, D&C or delivery

Pregnancy Loss:
- Any loss after 20 weeks, including stillbirth
- 1/4 or all pregnancies result in loss

Infant Loss:
- Neonatal loss within first 28 days of birth
- Higher prevalence in African American babies
- May be due to birth defects or congenital illnesses
- SIDS

Tips: A TISSUE
A - Assess and Acknowledge
T - Timely intervention
I - Inform and Instruct
S - Support
S - Stigma Free
U - Understanding
E - Educate and Empower
Review of Learnings

The Impact of COVID-19 on Maternal Mental Health
Staff Training and Patient Education
Referrals & Community Resources
Disparities in Perinatal Mental Health and Care
Supporting Patients with Perinatal Loss

Supporting NICU Families

Birth Trauma and Perinatal Mental Health
Substance Use Disorders & Perinatal Mental Health
Child Abuse Reporting & Perinatal Mental Health
Breastfeeding & Perinatal Mental Health
Fathers and Partners & Perinatal Mental Health
Supporting NICU Families

February/March 2021 – Dr. Sharon Tan

• High risk of PMADs for NICU families
  – Postpartum PTSD and Acute Stress Disorder
  – Postpartum OCD
• Increased sense of guilt, shame and self-blame
• Loss of control
• Attachment disruption
• Increased concern, isolation, & separation due to COVID-19 pandemic
• **Interventions**
  – Education (information)
  – Open communication (trauma-informed care)
  – Encourage bonding through touch and interaction
  – Provide reassurance and support redefinition of “good enough” parent
  – Increase social support
Review of Learnings

The Impact of COVID-19 on Maternal Mental Health
Staff Training and Patient Education
Referrals & Community Resources
Disparities in Perinatal Mental Health and Care
Supporting Patients with Perinatal Loss
Supporting NICU Families

**Birth Trauma and Perinatal Mental Health**

Substance Use Disorders & Perinatal Mental Health
Child Abuse Reporting & Perinatal Mental Health
Breastfeeding & Perinatal Mental Health
Fathers and Partners & Perinatal Mental Health
Birth Trauma and Perinatal Mental Health

April/May 2021 - Dr. Walker Ladd

Three Es:
- Event (trauma is in the eye of the beholder)
- Experience of the event
- Effects - The distress outlives the event

Tips:
- Assess
- Acknowledge
- Avoid Assumptions
Review of Learnings

The Impact of COVID-19 on Maternal Mental Health
Staff Training and Patient Education
Referrals & Community Resources
Disparities in Perinatal Mental Health and Care
Supporting Patients with Perinatal Loss
Supporting NICU Families
Birth Trauma and Perinatal Mental Health

**Substance Use Disorders & Perinatal Mental Health**

Child Abuse Reporting & Perinatal Mental Health
Breastfeeding & Perinatal Mental Health
Fathers and Partners & Perinatal Mental Health
Words Matter – Use first person language that demonstrates that the patient has a problem instead of is the problem (i.e., “person with a substance abuse disorder” vs. “addict”)

5 Ps: Screen for substance use by asking about Parents; Partner; Peers; Past; Pregnancy

Identify Comorbid Conditions: psychiatric illness (including PMADs), ACEs, IPV

Screening, Brief Intervention & Referral to Treatment (SBIRT) Model

Resources: Substance Use Navigators (ER department) & CommonSpirit Health Perinatal Psychiatry Consultation Service 1.833.205.7141
The Impact of COVID-19 on Maternal Mental Health
Staff Training and Patient Education
Referrals & Community Resources
Disparities in Perinatal Mental Health and Care
Supporting Patients with Perinatal Loss
Supporting NICU Families
Birth Trauma and Perinatal Mental Health
Substance Use Disorders & Perinatal Mental Health
Child Abuse Reporting & Perinatal Mental Health
Breastfeeding & Perinatal Mental Health
Fathers and Partners & Perinatal Mental Health
Child Abuse Reporting and Perinatal Mental Health

August/September 2021 – Dr. Patrisha Taylor

• Overrepresentation of Black, Latinx, and Indigenous families in the child welfare system

• Child abuse and neglect as defined in CA – imminent threat to child’s safety and well-being

• PMH risk factors that may lead to CPS involvement?
  – Impaired parental attunement
  – Decreased engagement in safety and health practices

• Child welfare involvement itself can be a risk factor for PMADs and trigger feelings of shame, guilt, defeat, isolation

• Remember:
  – Importance of assessment and early intervention
    • Increase protective factors
  – Build rapport and support attachment bond and parenting skills
Review of Learnings

The Impact of COVID-19 on Maternal Mental Health
Staff Training and Patient Education
Referrals & Community Resources
Disparities in Perinatal Mental Health and Care
Supporting Patients with Perinatal Loss
Supporting NICU Families
Birth Trauma and Perinatal Mental Health
Substance Use Disorders & Perinatal Mental Health
Child Abuse Reporting & Perinatal Mental Health
Breastfeeding & Perinatal Mental Health
Fathers and Partners & Perinatal Mental Health
Breastfeeding has a bidirectional relationship with perinatal mental health:
- Depression and anxiety may result in poor feeding experience
- Negative feeding experience may result in depression/anxiety

When Breastfeeding is a Negative Experience:
- Pain, physical discomfort, latch struggles
- Mismatch in goals and expectations vs. reality
- Negative emotions

When Breastfeeding is Positive Experience:
- Improved interactions with baby
- Responsive to baby’s cues
- Improved mood due to hormone release

Tips:
- Early intervention and support
- Validation and support of choice
- Avoid judgement/shame
Review of Learnings

The Impact of COVID-19 on Maternal Mental Health
Staff Training and Patient Education
Referrals & Community Resources
Disparities in Perinatal Mental Health and Care
Supporting Patients with Perinatal Loss
Supporting NICU Families
Birth Trauma and Perinatal Mental Health
Substance Use Disorders & Perinatal Mental Health
Child Abuse Reporting & Perinatal Mental Health
Breastfeeding & Perinatal Mental Health

Fathers and Partners & Perinatal Mental Health
• Hormonal changes during pregnancy also occur in fathers
• Fathers can be a protective factor
• 10% of dads experience PMADs
• Socio-cultural influences shape feelings and symptom presentation
• Multiple risk factors
• Mental health is a family issue

Tips:
- Acknowledge fathers as significant
- Include fathers in care & services
- Screen for paternal mental health
What has been a key takeaway for you from this PMH Learning Community? (more than one is okay)

• Most impactful?
• What matters most?

Enter the following on your mobile device or in another tab/browser:
1) www.menti.com code: 4032 4977
   OR
2) https://www.menti.com/m352f4ve9a
3) OR scan here...
What has been a key takeaway for you from this PMH Learning Community?
Hospital Panel
Please welcome Jean Manning and Tatyana Buchka!

• Population and hospital diversity
• Collaborative effort to create "standard work"
• Additional COVID-19 considerations
• What's next?
Please welcome Dr. Eynav Accortt, Jennifer Astasio and Kathleen Burgner!

- Published work prior to the hospital joining our PMH Learning Community
- How the nursing team built on those accomplishments to maintain the gains
- Retaining competency and compassion in the "hybrid" screening process
- Current data on screening and referral rates
Please welcome Christine Parker!

- A "head start" from New York
- Revising patient information materials with the help of Dr. Cherry
- The interface between maternal mental health and substance use disorder
- A patient care example – meeting special needs
Break
Breakout Room Discussions

- Personal Stories (Kelly)
- Screening & Referral Processes (Gabrielle)
- Trauma-Informed Care (Anna)
- Leading the Charge in Your Hospital (Barbara & Julia)
Keynote Address

Maternal Mental Health in Pregnancy and Postpartum: Focus on Pharmacology

Miriam Schultz, M.D.
December 8th, 2021
Learning Objectives

- Describe features of psychiatric disorders in pregnancy and postpartum where medication treatment is indicated
- Review safety profiles of psychiatric medications in pregnancy and breastfeeding
- Formulate initial psychopharmacological treatment strategies for the pregnant or postpartum patient
Perinatal Psychiatry Phone Consultation Service

(833) 205-7141

Put this number in your phone.
Call to discuss general questions about perinatal mental health, or details about a specific case.

For clinicians only.
TRUE or FALSE?
Self-Test: TRUE or FALSE?

Benzodiazepines such as lorazepam or clonazepam should be wholly avoided in pregnancy.

Sertraline is the best SSRI for treatment of peripartum depression or PTSD.

Lithium should be discontinued in pregnancy due to potential harm to growing fetus.
Fundamentals in treatment decisions

• Combining published data with specific risk/benefit assessment is best approach
• Mild and sometimes moderate illness can be treated with psychotherapy and behavioral interventions alone
• Illness producing profound symptoms requires psychiatric attention and possibly medication
  – Hx of psychiatric illness; screen for h/o bipolar
  – Inadequate maternal weight gain
  – Suicidal or homicidal thought of any nature (includes self harm)
  – Paranoid/delusional thinking or frank psychosis
  – Loss of ability to adequately care for self or infant
  – Infant avoidance
  – Substance use
Risk of medication exposure in pregnancy

- Teratogenic?
- Neonatal symptoms?
- Long term effects?
Medication: The risk/benefit conversation

Risk of SSRI TREATMENT in pregnancy:
- Babies born 4-5 days earlier (avg)
- Small increased risk of pre-term birth
- Some evidence of lower average birth weight
- Possible transient neonatal symptoms**

Risk of NOT TREATING or under-treating depression in pregnancy:
- Increased risk of postpartum depression
- Birth complications - small amt of data
- Harder to care for infant
- **Higher risk of impaired bond with infant**
- Higher risk of some developmental and psychiatric problems in child/adolescent

**Studies do not show long-term neurocognitive effects

Miriam Schultz, MD
SSRI in pregnancy

- Preponderance of data do not demonstrate an increase in risk of congenital malformation with AD med exposure\(^1\)
  - Fluoxetine\(^2\)
  - Sertraline
  - Citalopram
  - Escitalopram
  - TCAs (amitryptiline, nortryptiline)
- Paroxetine: Was made category D because inconsistently associated with a small increase in cardiac malformations

Neonatal Adaptation Syndrome (or Neonatal Abstinence Syndrome):

- Mild, resolves by 2 weeks, average duration is 48 hours
  - Insomnia or somnolence
  - Agitation, tremors, jitteriness, shivering and/or altered tone
  - Restlessness, irritability and constant crying
  - Poor feeding, vomiting or diarrhea
  - Poor temperature control, hypoglycemia
  - Tachypnea, respiratory distress, nasal congestion
  - Seizures

- 3-22% vs 10% of unexposed infants
- <1% of cases are severe (seizures, dehydration,
  - excessive weight loss, hyperpyrexia or intubation), no deaths
Choosing an SSRI for depression or anxiety

History of SSRI?

NO

SCREEN
for indiv and fam hx of mania or psychosis

Negative

Consider sertraline, escitalopram or citalopram

Positive

Consider psychiatry consult; possible mood-stabilizer or anti-psychotic

YES

Use what has worked in the past
### Antidepressant Treatment Algorithm

**Is patient currently taking an antidepressant?**

- **Yes**
  - Symptoms improving but not resolved
    - Increase dose of current medication
  - If patient is on therapeutic dose (see table below) for 4 - 8 weeks that has not helped
    - Consider changing medication
  - Does patient have a history of taking an antidepressant that has helped?
    - **No**
      - Prescribe the same medication that helped the patient in the past
    - **Yes**
      - Repeat EPDS in 2 – 4 weeks and re-evaluate depression treatment plan via clinical assessment

**Other SSRI Options**

<table>
<thead>
<tr>
<th>Medication</th>
<th>First line treatment(s)</th>
<th>Other SSRI Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>sertraline</td>
<td>25 mg</td>
<td>fluoxetine</td>
</tr>
<tr>
<td></td>
<td>from 25 mg to 50 mg</td>
<td>citalopram</td>
</tr>
<tr>
<td></td>
<td>after 4 days, then up to 50 mg</td>
<td>10 mg</td>
</tr>
<tr>
<td></td>
<td>up to 50 mg after 7 days, then up to 100 mg</td>
<td>10 mg</td>
</tr>
<tr>
<td></td>
<td>up to 100 mg until symptoms remit</td>
<td>5 mg</td>
</tr>
<tr>
<td></td>
<td>temporary nausea</td>
<td>increased appetite-weight gain</td>
</tr>
<tr>
<td></td>
<td>constipation/diarrhea</td>
<td>sexual side effects</td>
</tr>
<tr>
<td></td>
<td>lightheadedness</td>
<td>vivid dreams/insomnia</td>
</tr>
<tr>
<td></td>
<td>headaches</td>
<td></td>
</tr>
</tbody>
</table>

**Medication**

- **Temporary**
  - Nausea
  - Constipation/diarrhea
  - Lightheadedness
  - Headaches
- **Long-term**
  - Increased appetite/weight gain
  - Sexual side effects
  - Vivid dreams/insomnia

**Repeat EPDS**

- If no/minimal clinical improvement after 4 – 8 weeks
  - If patient has no or minimal side effects, increase dose
  - If patient has side effects, switch to a different medication
- If clinical improvement and no/minimal side effects
  - Re-evaluate every month and at postpartum visit

---

**Dignity Health**

Copyright © 2017 MCPAP for Moms Program all rights reserved. Version 2.07.11.17 Funding provided by the Massachusetts Department of Mental Health. Authors: Byatt N., Biebel K., Mittal L., Lundquist R., Freeman M., & Cohen L., Moore Simas T.
Initiating sertraline treatment for depression/anxiety

- Manage expectations for time to effect
- Monitor for activation/irritability
- Track response with a screening tool
- Meds + psychotherapy = better together

Start 25mg x 4-5 days
Increase to 50 mg x 1 week
Continue increase by 25-50 mg Q week
Max dose 150-200 mg daily
Other medications for depression in pregnancy

- Bupropion
- Mirtzapine
- SNRI:
  - Venlafaxine
  - Desvenlafaxine
  - Duloxetine
- Esketamine: Disrupts normal fetal brain development

Other medications used for anxiety

- Quetiapine
- Propranolol
- Buspirone
- Gabapentin
- Hydroxyzine


### Table 1

Response frequencies of triggers of mood episodes in participants with bipolar disorder (n = 3140)

<table>
<thead>
<tr>
<th>Mood episode, response</th>
<th>Sleep loss</th>
<th>Physical illness</th>
<th>Alcohol</th>
<th>Non-prescription drugs</th>
<th>Medication</th>
</tr>
</thead>
<tbody>
<tr>
<td>High mood</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>627 (20.0)</td>
<td>82 (2.6)</td>
<td>231 (7.4)</td>
<td>175 (5.6)</td>
<td>114 (3.6)</td>
</tr>
<tr>
<td>No</td>
<td>2325 (74.0)</td>
<td>2952 (94.0)</td>
<td>2706 (86.2)</td>
<td>2781 (88.6)</td>
<td>2881 (91.8)</td>
</tr>
<tr>
<td>Not applicable/unsure</td>
<td>138 (6.0)</td>
<td>106 (3.4)</td>
<td>203 (6.5)</td>
<td>184 (5.9)</td>
<td>145 (4.6)</td>
</tr>
<tr>
<td>Depression</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>359 (11.4)</td>
<td>271 (8.6)</td>
<td>242 (7.7)</td>
<td>92 (2.9)</td>
<td>79 (2.5)</td>
</tr>
<tr>
<td>No</td>
<td>2378 (75.7)</td>
<td>2555 (81.4)</td>
<td>2526 (80.4)</td>
<td>2693 (85.8)</td>
<td>2736 (87.1)</td>
</tr>
<tr>
<td>Not applicable/unsure</td>
<td>403 (12.8)</td>
<td>314 (10.0)</td>
<td>372 (11.8)</td>
<td>355 (11.3)</td>
<td>325 (10.4)</td>
</tr>
</tbody>
</table>

Separate study: Women who reported sleep loss triggering episodes of mania were 2x as likely to have experienced an episode of postpartum psychosis compared to women who did not report this.
Benzodiazepines in pregnancy

- Early studies showed increase in cleft lip and palate with benzo exposure; those have not been replicated
- Rate of malformations in large UK study showed no difference in malformation rate in benzo-exposed vs non-exposed
- Exposure to benzo in utero poses higher risk of NAS than SSRI exposure (sx can include irritability, sleep disruption, seizure), esp. with rapid or no taper
- 2019 study shows slightly higher risk of preterm birth, slightly lower GA at delivery

Sleep medications in pregnancy

First-line Rx for Sleep:

- **SLEEP** - all hands on deck!
- **BEHAVIORAL interventions**
- **Benzodiazepines**: lorazepam or clonazepam
- **Sedating tricyclic antidepressants**: amitriptyline or nortriptyline
- **Antihistaminic agents**: first generation antihistamines considered safe: diphenhydramine, chlorpheniramine, hydroxyzine
- **Trazodone**: studies have shown no increased rate of congenital malformations
- **Reproductive safety data limited in** zolpidem, eszopiclone and zaleplon

Cannabis in pregnancy

- Schedule I: Collecting data on illegal substances is difficult
- Large study published in JAMA:
  - ▲ risk of premature birth
  - ▲ risk of SGA
  - ▲ risk of transfer to the NICU
- THC stored in fat; can linger in a mother’s body for weeks/months
- Neurodevelopmental impact: Possible effect on
  - executive functioning, behavior, psychiatric

First-line treatment of peripartum OCD

**Mild**
Cognitive-behavioral therapy (CBT)

**Moderate-to-Severe**
SSRI alone
SSRI **plus** CBT
Augmentation with quetiapine

Treatment of peripartum PTSD

Psychotherapies: for any severity
- Trauma-focused CBT
- Prolonged exposure therapy
- Cognitive restructuring

What NOT to do: “Tell me exactly what happened?”

Moderate-to-Severe PTSD: Consider SSRI
- sertraline, paroxetine, fluoxetine, and venlafaxine

For related symptoms:
- mood stabilizers, benzos, alpha-1 blockers, beta blockers

Peripartum-related PTSD variants

**NICU trauma:** Majority of mothers meet criteria for PTSD after their infants have had long NICU admissions

**Postpartum PTSD (P-PTSD):** Up to one third of women describe their childbirth experience as traumatic

**Stillbirth and pregnancy loss:** A 2018 study: 40% of women who lost a baby after 2nd trimester met criteria for PTSD; 30% met criteria for depression

**Re-surfaced sexual trauma:** A 2003 study showed women w/history of sexual abuse were 12x more likely to report birth as traumatic
Mood stabilizers in pregnancy

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Risk of neural tube defects</th>
<th>Risk of cognitive or neurodevelopmental effects: fetal exposure assoc. with lower IQ score</th>
<th>Risk of neural tube defects 0.5-1%</th>
<th>No evidence of cognitive delay</th>
<th>NO increased risk of teratogenesis</th>
<th>Needs might increase with pregnancy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbamazapine</td>
<td>X</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Valproic acid (VPA)</td>
<td>X</td>
<td>● Risk of neural tube defects 1-5%</td>
<td>● Risk of cognitive or neurodevelopmental effects: fetal exposure assoc. with lower IQ score</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lamotrigine</td>
<td>✔</td>
<td>● NO increased risk of teratogenesis</td>
<td>● Needs might increase with pregnancy</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Lithium in pregnancy

- Ebstein’s Anomaly is 0.1-0.2%; unexposed risk is .005% (risk goes from 1/20,000 to 1/1000)\(^1\)
  - Level 2 fetal U/S at week 18 to assess for anomalies
- Complicated by maternal GFR which changes throughout pregnancy and after birth
  - monitor levels at least Q 3-4 weeks, then weekly after 34 weeks
  - Monitor even more closely in labor and delivery
- Manage with multiple daily dosings so less fetal exposure to peak levels; critical for infant to stay hydrated/get treatment if infant dehydration
- With severe bipolar disorder the risk of relapse in pregnancy is greater than relatively small risk of Ebstein’s

\(^1\) Ebstein’s Anomaly is a congenital cardiac defect where the tricuspid valve is displaced into the right atrium. The risk of Ebstein’s Anomaly is estimated to be 0.1-0.2% of the general population, with an unexposed risk of .005% (risk goes from 1/20,000 to 1/1000). Level 2 fetal ultrasound (U/S) is recommended at week 18 to assess for anomalies. The maternal GFR changes throughout pregnancy and after birth, requiring monitoring of lithium levels at least every 3-4 weeks, then weekly after 34 weeks. Even more closely monitoring is recommended in labor and delivery. Managing lithium with multiple daily dosings helps reduce fetal exposure to peak levels, which is critical for the infant to stay hydrated and receive treatment if necessary. With severe bipolar disorder, the risk of relapse during pregnancy is greater than the relatively small risk of Ebstein’s Anomaly.

References:
Antipsychotics in pregnancy

- Relatively safe in pregnancy with respect to congenital malformations\(^1\)
- Must consider risk of *not* using the medication when indicated for serious mental illness
- Quetiapine, risperidone, haloperidol and olanzapine have lowest placental transfer
- Metabolic syndrome is already a risk; these medications are associated with:
  - Excessive maternal weight gain
  - Increased risk of gestational diabetes
    - Women who continue olanzapine or quetiapine into pregnancy have increased risk of GD compared to those who discontinue
    - Not so with ziprasidone, aripiprazole, or risperidone
  - Increased infant birth weight

Electro-Convulsive Therapy (ECT) in pregnancy

- Efficacy rates for the use of ECT in patients with treatment-resistant depression (TRD) exceed 85%, better than any other treatment
- Sturdy response in both depressed and manic phases of bipolar disorder
- Safe for mother and fetus in pregnancy
- Late in pregnancy: women should lie on left side to ensure adequate blood-flow to fetus
- Risk of aspiration/reflux
The AAP states most drugs do not pose a risk to the mother or infant who is nursing, and:

"...the benefits of breastfeeding outweigh risks of exposure to most therapeutic agents via human breast milk."
Impact of medication while breastfeeding?

Factors that affect **excretion into the breastmilk** (and M/P ratio):

- lack of ionization
- small molecular weight
- low volume of distribution
- low maternal serum protein binding
- high lipid solubility

Factors that affect **infant exposure**:

- excretion
- long half-lives (more likely to accumulate in human milk)
- oral bioavailability (more easily absorbed by the infant)
- infant age (hepatic development)
Most every drug is transferred into breast milk, but amount often negligible.

Factors are maternal plasma concentration, maternal protein binding, size of molecule, and lipid solubility, milk volume.

SSRIs tend to have low to undetectable infant serum levels.

Lithium can be taken but only with vigorous monitoring.

Strategies to reduce infant exposure to antidepressants have been suggested; whether clinically meaningful reduction in an already low exposure has *not* been established (ie. “pump & dump”).

LactMed: excellent online peer-reviewed NIH database.
## Antidepressants in breastfeeding

<table>
<thead>
<tr>
<th>Medication</th>
<th>Breastfeeding</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SSRIS</strong></td>
<td>Relatively low excretion; Sertraline and Paroxetine lowest at 2-3% Fluoxetine has longer half-life</td>
<td>Sertraline mostly undetectable in breastfed infants Fluoxetine less favored due to long ½ life and active metabolite: irritability, poor sleep, increased rates colic reported</td>
</tr>
<tr>
<td><strong>Buproprion</strong></td>
<td>&lt;1% excretion with 1 possible adverse outcome reported</td>
<td>Reasonable option, especially if prior good response</td>
</tr>
<tr>
<td><strong>Duloxetine</strong></td>
<td>Low exposure but limited data</td>
<td>Other agents with more data favored</td>
</tr>
<tr>
<td><strong>Mirtazapine</strong></td>
<td>Low excretion; compatible with breastfeeding</td>
<td>Reasonable option; also helps with insomnia</td>
</tr>
<tr>
<td><strong>Venlafaxine</strong></td>
<td>2%-9% excretion, no adverse outcomes reported</td>
<td>Other agents with more data preferred</td>
</tr>
<tr>
<td><strong>Vilazadone, Vortioxetine</strong></td>
<td>Case series for vortioxetine (N=3) showing low levels of exposure</td>
<td>Other agents with more data preferred unless history of good response</td>
</tr>
</tbody>
</table>
Brexanolone: The first of its kind (March 2019)

- Allosteric modulator of γ-aminobutyric-acid type A (GABAa) receptor, FDA-approved for treatment of moderate to severe postpartum depression
- Given by continuous infusion over 60 hours
- Starts working within hours of administration
- Risk Evaluation and Mitigation Strategy (REMS) protocol requires the drug be administered by a health care provider in a certified health care facility.
- FDA approved for postpartum depression; not defined by particular timeframe
Benzodiazepines in breastfeeding

- Concerns about sedation and/or poor feeding in infant
- 2015 study showed sedation in 1.6% of infants exposed to benzo through breastmilk (2 out of 124)
- **Take-away:** Benzodiazepines can be a reasonable short-term treatment for moderate to severe/acute anxiety while breastfeeding
# Mood stabilizers in breastfeeding

<table>
<thead>
<tr>
<th>Medication</th>
<th>Breastfeeding</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lamotrigine</td>
<td>Limited data but thought to be safe despite high infant exposure as much as 60% of maternal concentrations</td>
<td>Considered safest AC in pregnancy; don’t change if this kept a bipolar woman stable in pregnancy</td>
</tr>
<tr>
<td>Lithium</td>
<td>30%-50% excretion</td>
<td>Avoid in breastfeeding IF possible; would require significant monitoring of infant levels (it CAN be done!)</td>
</tr>
<tr>
<td>Valproate</td>
<td>&lt;1% excretion; considered safe</td>
<td>Can switch back to this after pregnancy if indicated</td>
</tr>
<tr>
<td>Carbamazepine</td>
<td>Relatively high levels in breastmilk and reports of sedation, 3 cases of hepatic dysfunction</td>
<td>Avoid if possible</td>
</tr>
</tbody>
</table>
The sleep factor: how high are the stakes?

Bipolar disorder sleep considerations:

- Genetic link to sleep-wake cycle problems that can trigger symptoms of depression and mania
- Sleep loss may lead to a mood episode such as mania or mixed mania, or postpartum psychosis (both rare and lethal)
- Once a sleep-deprived person with bipolar disorder becomes manic, they require even less sleep

Breastfeeding with bipolar disorder:

- On-demand breastfeeding disrupts the mother’s sleep ---> increased vulnerability to relapse during the acute postpartum period
## Antipsychotics in breastfeeding

<table>
<thead>
<tr>
<th>Medication</th>
<th>Breastfeeding</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Atypicals: quetiapine, olanzapine, risperidone, aripiprazole, lurasidone</strong></td>
<td>Excretion is very low, usually &lt;3% w/exception of clozaril; less than 1% with quetiapine Overall: not much data; olanzapine has most and is reassuring</td>
<td>Reasonable choice; avoid clozapine in breastfeeding if possible; monitor for decreased milk supply with aripiprazole.</td>
</tr>
<tr>
<td><strong>Typicals: haloperidol, perphenizine, others</strong></td>
<td>Relatively low excretion reported; sedation and parkinsonism effects possible in infants</td>
<td>Haloperidol and fluphenazine favored in pregnancy; long history of safe use and fewer hypotensive, anticholinergic and antihistaminic effects. Overall limited data but relatively safe.</td>
</tr>
</tbody>
</table>
The breastfeeding bipolar mom: Considerations

- Naps during the day if possible
- Intermittent bottle feeding to reduce sleep disruption
- All hands on deck: relying on others to help with feedings (and any nighttime wake-ups)
- Medications that help regulate sleep in the postpartum bipolar woman should be considered, given the extent to which she is at a high risk for relapse
- Discuss all of the above BEFORE baby arrives, and ideally before pregnancy
Benzodiazepines such as lorazepam or clonazepam should be wholly avoided in pregnancy.

Sertraline is the best SSRI for treatment of peripartum depression or PTSD.

Lithium should be discontinued in pregnancy due to potential harm to growing fetus.
Resources for Prescribing Clinicians: Websites

- **MCPAP Provider Toolkit** - comprehensive downloadable toolkits for clinicians who work with pregnant and postpartum women (screening, treatment algorithms)
- **MGH Center for Women’s Mental Health**: womensmentalhealth.org; excellent up-to-date resource on treating PMADs
- **Reprotox.org**: Data on pregnancy and lactation for any drug you search
- **Lactmed**: https://toxnet.nlm.nih.gov/newtoxnet/lactmed.htm (also an App!)
- **Infantrisk.com**: Excellent updated info on medications, Covid questions
- **Postpartum Support International (PSI)**: Psychopharm webinar (CME available)
Thank you!
Special Contributions- THANK YOU!

1. Hospitals that posted peer resources on HQI website

- Dignity/CommonSpirit Health
- Bakersfield Memorial
- Dominical Hospital
- St. Elizabeth
- Mercy Medical Center Redding
- El Camino Health
- First 5 Orange County
- Emanate Health Queen of the Valley
- Marshall Medical Center
- Pomona Valley Hospital MC
- Sharp Healthcare
- Sierra Vista Regional MC
- Valley Presbyterian Hospital

2. Hospitals that provided a speaker(s) for webinar/office hour

- Marshall Medical Center
- Mercy Medical Center Redding
- Cedars Sinai Medical Center
- Emanate Health, Queen of the Valley
- Mercy Medical Center San Juan
- Scripps Health
Robust Education Participation

Hospitals with 10 or more learners on the online platform

AH Bakersfield  Barstow Community  Cedars Sinai MC  Contra Costa Regional  Desert Valley MC  Desert Regional  Doctors Modesto  East LA Doctors  El Centro Regional  Emanate Queen of the Valley

Emanuel Medical Center  Fairchild Medical Center  Highland  Marshall Medical Center  NorthBay Medical Center  Providence Cedars Tarzana  Riverside University MC  San Antonio Regional  San Ramon Regional

Scripps Memorial Encinitas  Scripps Memorial La Jolla  Scripps Mercy Chula Vista  Scripps Mercy San Diego  Sharp Grossmont  Sharp Mary Birch  Sutter Amador  Twin Cities  USC Verdugo Hills  Watsonville Community
Baseline AND Follow Up Survey

Completed **both to date:**

<table>
<thead>
<tr>
<th>AH and Rideout</th>
<th>El Centro Regional MC</th>
<th>Salinas Valley Medical Center</th>
</tr>
</thead>
<tbody>
<tr>
<td>AH Lodi Memorial</td>
<td>Emanate Queen of the Valley</td>
<td>San Gabriel Valley MC</td>
</tr>
<tr>
<td>Anaheim Regional</td>
<td>Emanuel Medical Center</td>
<td>Sharp Mary Birch</td>
</tr>
<tr>
<td>Arrowhead Regional</td>
<td>Fairchild Medical Center</td>
<td>Sierra Nevada Memorial</td>
</tr>
<tr>
<td>Barstow Community</td>
<td>Garfield Medical Center</td>
<td>St. Joseph Medical Center</td>
</tr>
<tr>
<td>Cedars Sinai MC</td>
<td>Henry Mayo Newhall MC</td>
<td>St. Elizabeth Community</td>
</tr>
<tr>
<td>Community Regional</td>
<td>Huntington Hospital</td>
<td>Twin Cities Community</td>
</tr>
<tr>
<td>Contra Costa Regional</td>
<td>John Muir Health</td>
<td>UCI Medical Center</td>
</tr>
<tr>
<td>Cottage Health</td>
<td>Marshall Medical Center</td>
<td></td>
</tr>
<tr>
<td>Desert Regional MC</td>
<td>Mercy General Hospital</td>
<td></td>
</tr>
<tr>
<td>Desert Valley Hospital</td>
<td>Mercy San Juan MC</td>
<td></td>
</tr>
<tr>
<td>St. Bernardine MC</td>
<td>Methodist Hospital</td>
<td></td>
</tr>
<tr>
<td>Doctors MC Modesto</td>
<td>Orange County Global</td>
<td></td>
</tr>
<tr>
<td>East LA Doctors</td>
<td>Pomona Valley Hospital MC</td>
<td></td>
</tr>
<tr>
<td>Eisenhower Health</td>
<td>Redlands Community</td>
<td></td>
</tr>
</tbody>
</table>

91
Certificates & Thank You!

- Every hospital receives a "thank you" certificate for participation.
- Special recognition categories will be added to certificates for those respective hospitals.
Enduring Materials

All are stored on HQI website: https://www.hqinstitute.org/post/perinatal-mental-health-learning-community

• Maternal Mental Health: What to Know & How To Screen  
  – Available for upload to your institution’s Learning Management System as a SCORM file  
  – Videos available on YouTube

• Quick Reference Guide: https://guide.mmhnow.org/

• Speak Up When You’re Down Brochure

• Emotional Wellness Self-Help Tool: https://mycare.mmhnow.org/
Polling questions:

1) Today’s Capstone Event was a good use of my time (agree-disagree-unsure)

Open Text feedback – type into “Chat”:

What was done well?
What could have been done better/differently?