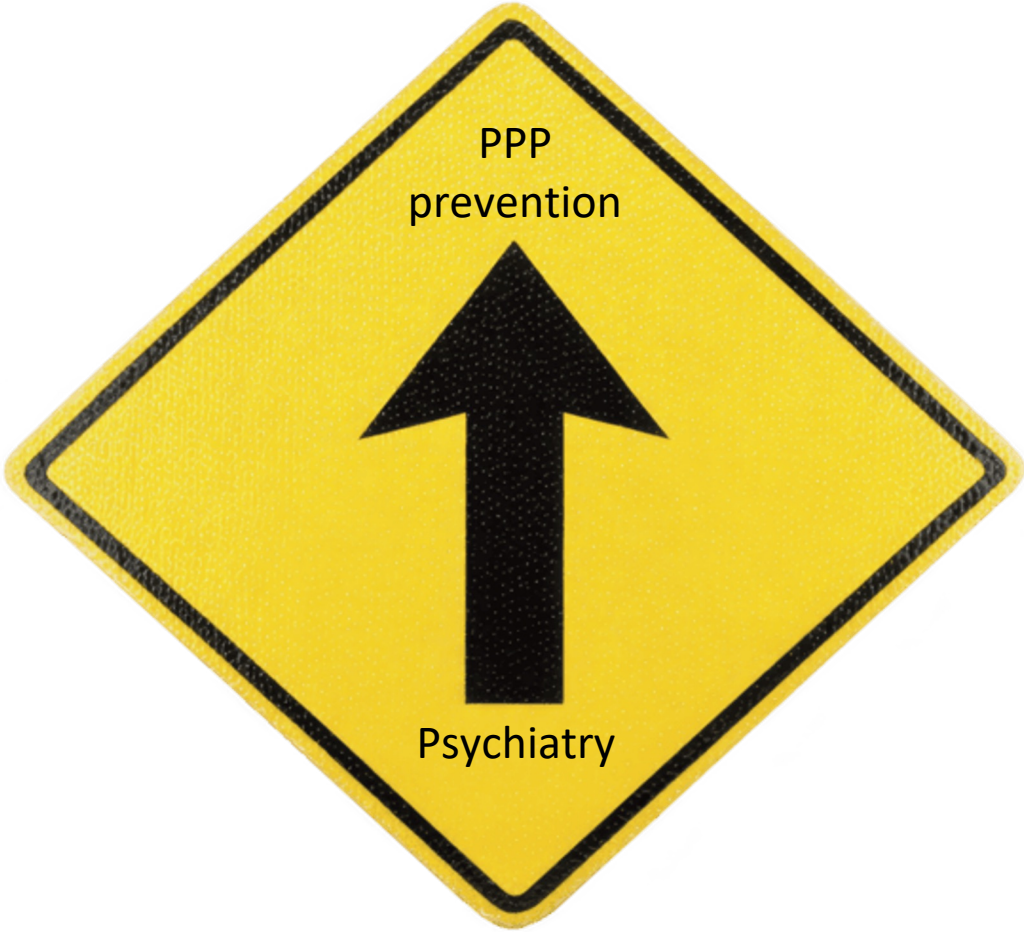
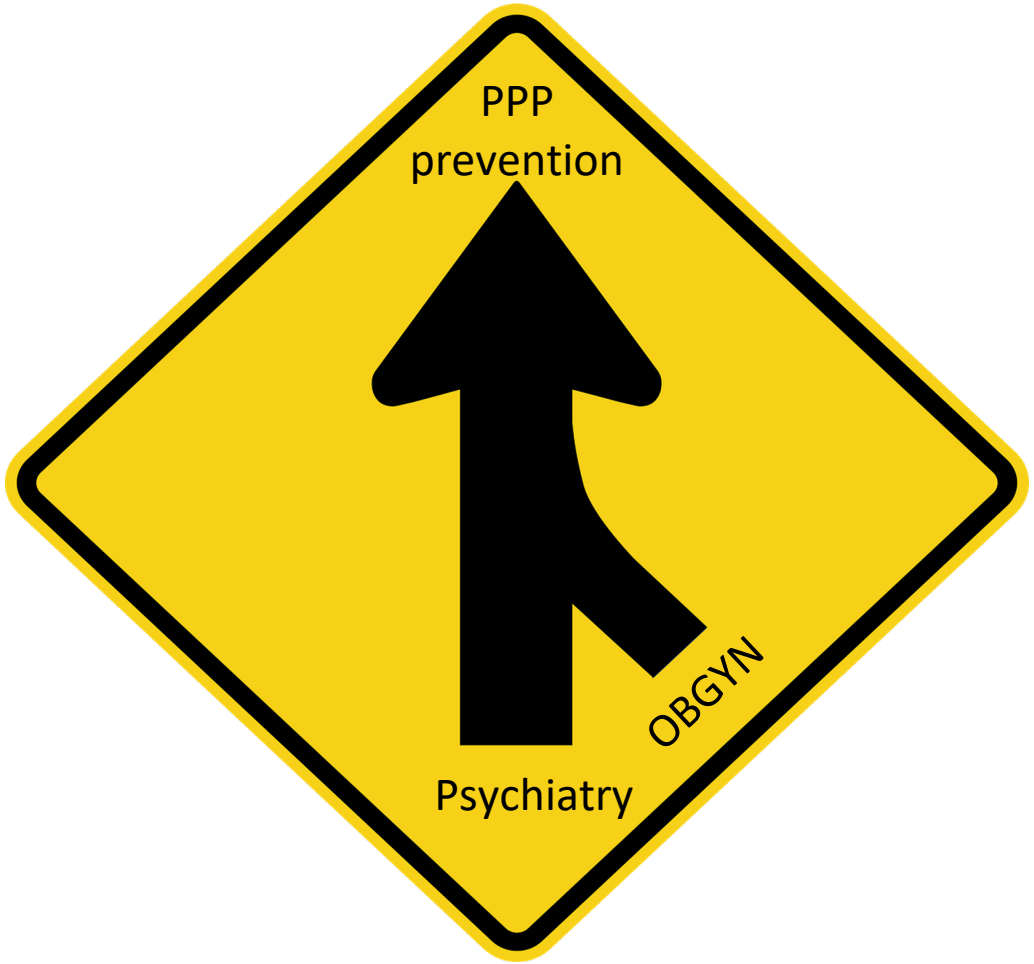
Postpartum Psychosis:
Whose Lane is it Anyways?

PERINATAL
COLLABORATIVE CARE
COLLECTIVE

Whose Lane is it Anyways?



Whose Lane is it Anyways?



Objectives

- Review postpartum psychosis (PPP) case
- Recognize patients at-risk for development of PPP
- Highlight contributing factors during L&D hospitalization to development of PPP
- Understand sleeps role in physiological process
- Discuss joint role OBGYN and psychiatric play in prevention of PPP

Case

- 29 yo G1P1 with history of bipolar 1 disorder (one prior manic episode in early 20s) on lithium delivered at 36w via spontaneous vaginal delivery
  - Followed in reproductive psychiatry clinic throughout pregnancy
  - Outpatient OBGYN provider aware and supportive of medication maintenance
  - Hypomanic symptoms emerged third trimester, lithium increased and symptoms resolved
  - Discussed postpartum psychosis prevention efforts with patient and husband
  - Presented to ED due to preterm labor at 36w

Postpartum Psychosis Plan

- Sleep
  - Recommended 5 consecutive hours of sleep in the night for the patient- family planned to provide infant care in that time
  - Offered doula as option but ample support at home
- Feeding goals
  - Patient hoped to breastfeed
  - Discussed plan for formula feeding during dedicated rest time by husband in early days to promote sleep
- Maintenance of medication with education that early adjustments may be needed
- Agreed to follow up 1 week postpartum with lithium level check
- Warning signs
  - Educated family on early symptoms of PPP (restlessness, irritability, difficulty sleeping) with recommendation to call psychiatrist should any arise
  - Educated on more concerning symptoms (insomnia, psychosis, confusion, SI, delusions) with recommendation to present to ED

Timeline

PPD	Events
0	Labored throughout evening, delivered after midnight, baby in room with her, all assessments through the night into morning patient was noted awake, lithium continued
1	No documented sleep in nursing assessments throughout the night (one awake assessment, one assessment not noted)
2	Sleep disruption not reported to medical team, noted to be awake in night/early morning assessments, discharged during day, lithium level requested by outpatient Psychiatrist prior to discharge, lithium level on lower end of therapeutic
4	Family called outpatient Psychiatrist -reports she did not sleep at all in hospital. Had only slept a couple hours in two days she had been home. Reports some hyperactivity. Spoke with patient- irritable but non pressured speech, logical. Started Ativan 1 mg with plan to take additional if not asleep within hour given benefit in pregnancy.
5	Minimal sleep (less than an hour) with Ativan. More irritability, felt on edge. Started olanzapine 5 mg at bedtime and guidance to take Ativan 1 mg if not asleep within hour.
6	A few hours of broken sleep. Took olanzapine and lithium and slept some. Took an Ativan and slept a bit more. Increased olanzapine and lithium and rechecked level – therapeutic
7	Presented to ED due to continued inability to sleep. Hyper Religious, Disorganized. +AH. Punching walls
9	Inpatient psychiatric hospitalization for 4 weeks requiring ECT for treatment of symptoms Discharged to DHP partial program

Diagnostic Criteria

- Not formally in DSM-5, making diagnosis & management challenging
  - Proposed Diagnosis:
  - Onset of at least one of the following five states within 12 weeks of childbirth, lasting at least 1 week and present most of the day, nearly every day, or any duration if hospitalization is necessary:
    a. Mania/mixed state
    b. Delusions
    c. Hallucinations
    d. Disorganized speech or formal thought disorder
    e. Disorganized, confusional, or catatonic behavior
    f. Depression with psychotic features
  - The episode is associated with an unequivocal change in functioning that is uncharacteristic of the postpartum period.
  - The disturbance in mood and the change in functioning are observable by others.
  - The episode is sufficiently severe enough to cause marked impairment in social functioning and in the care of the baby or to necessitate hospitalization to prevent harm to the patient, baby, or others.

(bergink, Oct 2025)

Symptoms and Signs

- Insomnia
- Rapid, Intense Shifts of Mood
- Restlessness
- Irritability
- Often present with a delirium-like picture:
- Disorientation
- Confusion
- Derealization
- Depersonalization
- Symptoms may Wax and wane
- Mania, depression, mixed state

Risks

- Rate is 100X higher in women with bipolar disorder or history of postpartum psychosis
- Relapse rates for individuals with history of postpartum psychosis is 20-50%
- Many patients admitted with postpartum psychosis do not have a prior psychiatric disorder
- Postpartum psychosis 3-4x more likely in first time moms
  - If first pregnancy is not complicated by postpartum psychosis, risk drops substantially for future pregnancy

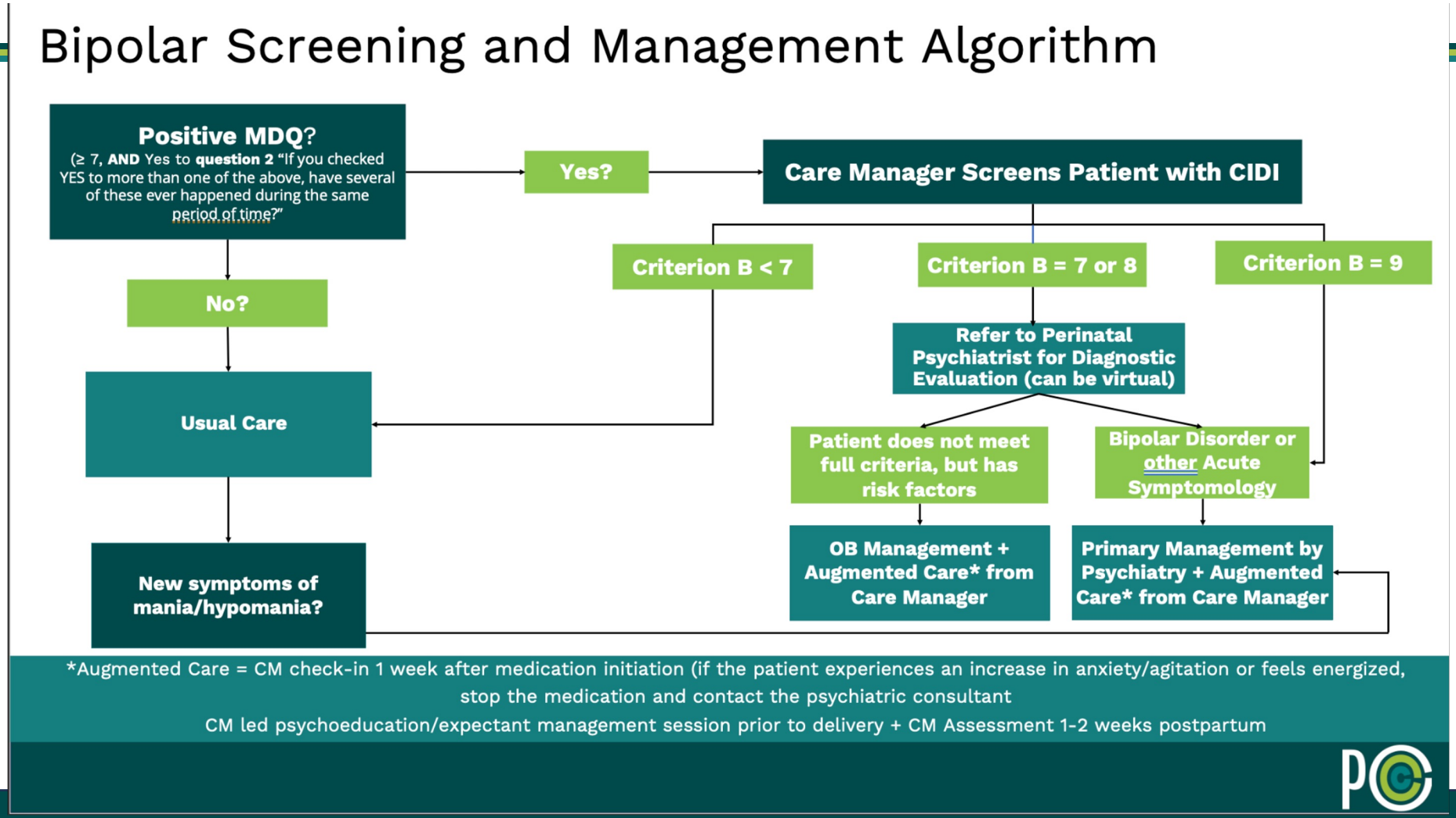
Chandra, 2006; Bergink, 2016; Bergink, 2011

No Diagnosis?

- Collaborative care model offers screening of at-risk patients, ongoing management and close follow up, referral process, and active outreach to patients through use of patient registry
  - Enrolled: Alerting care manager with concerns
  - Not enrolled: Enrolling patient
- MDQ (bipolar 1 disorder screening)
- Risk factors for bipolar disorder
  - Family member with bipolar disorder
  - Substance use
  - 3 or more depressive episodes
  - Early age of onset for depression- before age 25

McIntyre, et al, 2020

Collaborative Care Model



Opportunities with OBGYN

- Access
  - Pregnant and postpartum patients with psychiatric disorders are more likely to attend obstetrics and gynecology appointments than psychiatry appointments
  - Only about one-third of women with a diagnosable mental disorder have any contact with mental health services during pregnancy or up to three months postpartum
- Recognizing those at risk
- Supporting maintenance of medications to reduce risk of recurrence
- L&D
  - May be a crucial time for mitigating risk/minimizing severity of episode especially related to sleep and flagging those with risk factors who did not get adequate sleep in L&D

Robertson Blackmore, et al, 2006, Viguera, et al, 2007, Nager, et al 2008, Yonkers, et al, 2011, Lee- Carbon, et al, 2022.

Postpartum Psychosis and Delivery

- Symptoms often develop quickly after delivery
- **90%** of all postpartum psychotic episodes occur within the **first four weeks** after delivery
- **60%** of all postpartum psychotic episodes occur within the first **2 weeks** after delivery
- Typical time of symptom onset is between **postpartum day 3 & 10**

Bergink, 2016

Treatment algorithm for postpartum psychosis

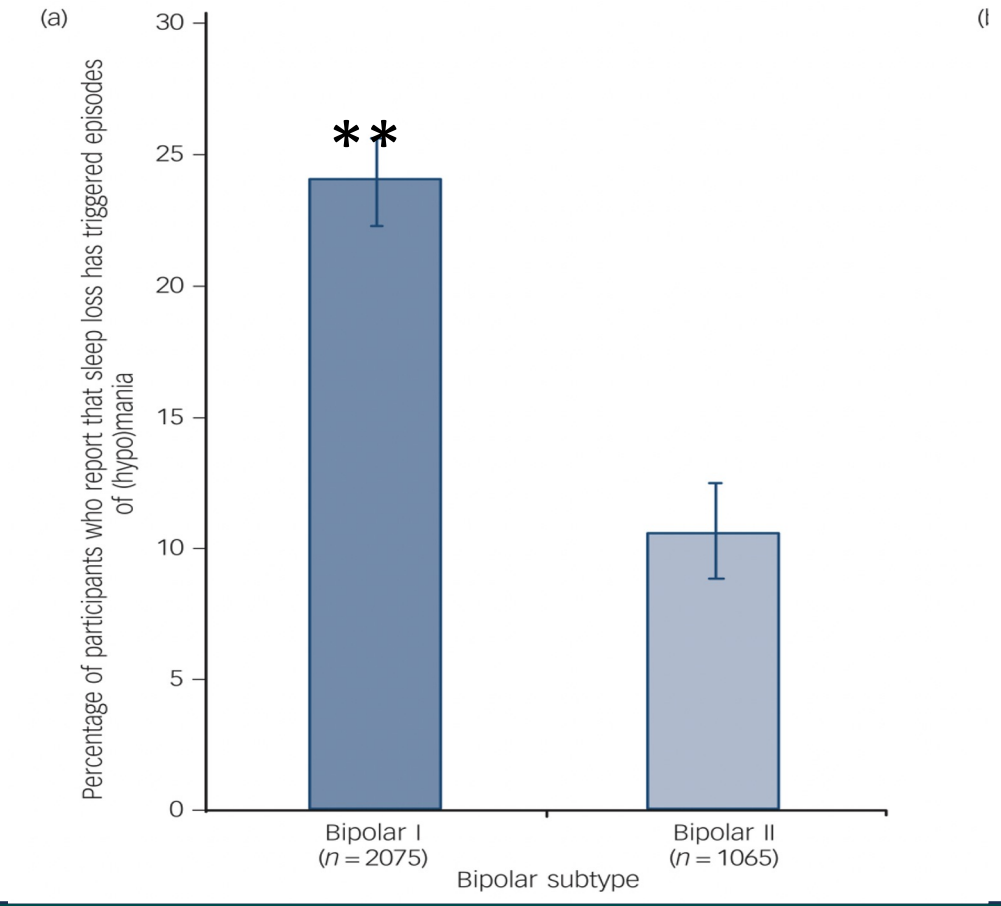
- Step 1: Benzodiazepines QHS
  - allows for restoration of sleep and can lead to recovery in a subgroup of patients
- Step 2: Add Antipsychotic Medication (example: olanzapine, seroquel)
- Step 3: Add lithium (seems to provide most robust response)
- Step 4: ECT

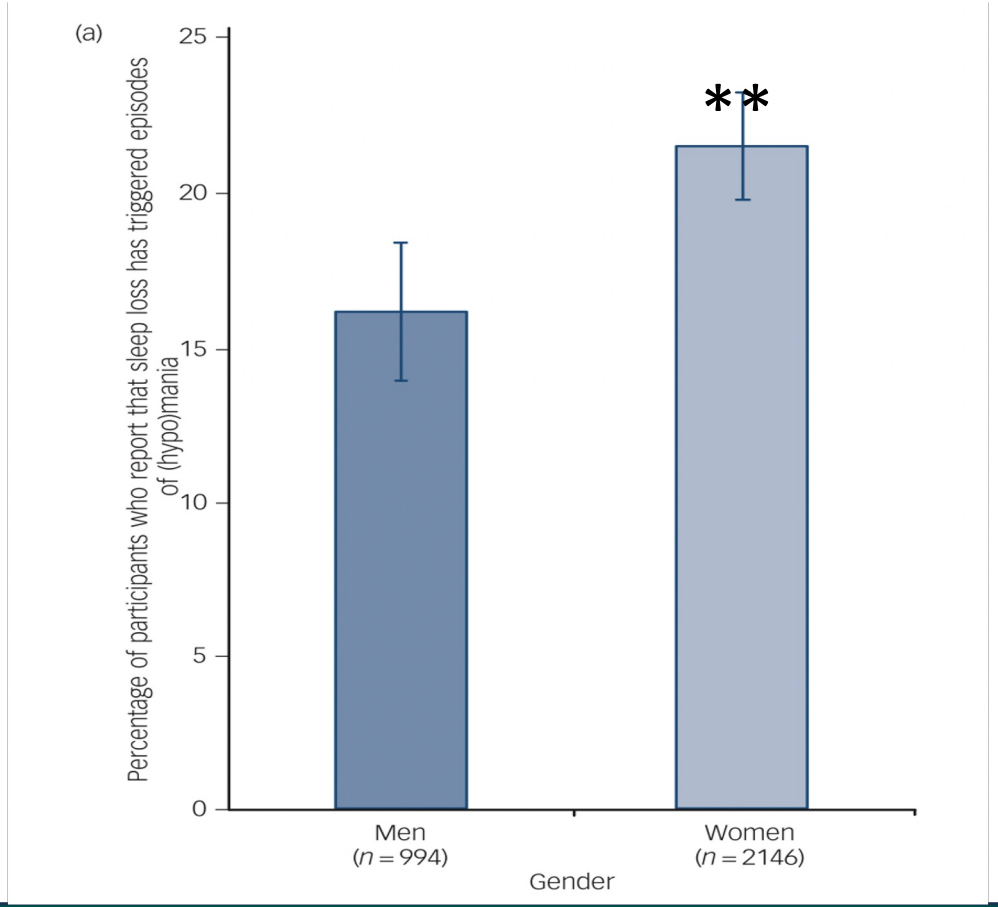
Bergink, 2015

Case: What Put Her at Risk?

- Two biggest risk factors
  - Diagnosis (previous diagnosis of bipolar disorder) and Primiparity
- Tertiary prevention
  - Need for more proactive management through collaborative care?
- Final hit?
  - Sleep deficit at L&D?
  - Rapid hormonal changes

Sleep Loss as a Trigger





Sweden Lewis, et al, 2017

Why Sleep?

- Dopamine pathway dysregulation
  - In animal models, acute sleep loss causes elevated dopamine release in specific brain regions that mediate distinct behavioral changes characteristic of manic states: hyperactivity, elevated social and sexual behaviors, and reduced depressive-like behaviors
  - New dendritic spines in mPFC maintain the elevated affective state after sleep loss
- Circadian rhythm dysfunction
  - Sleep deprivation alters diurnal oscillations in circadian rhythm-associated in the prefrontal cortex

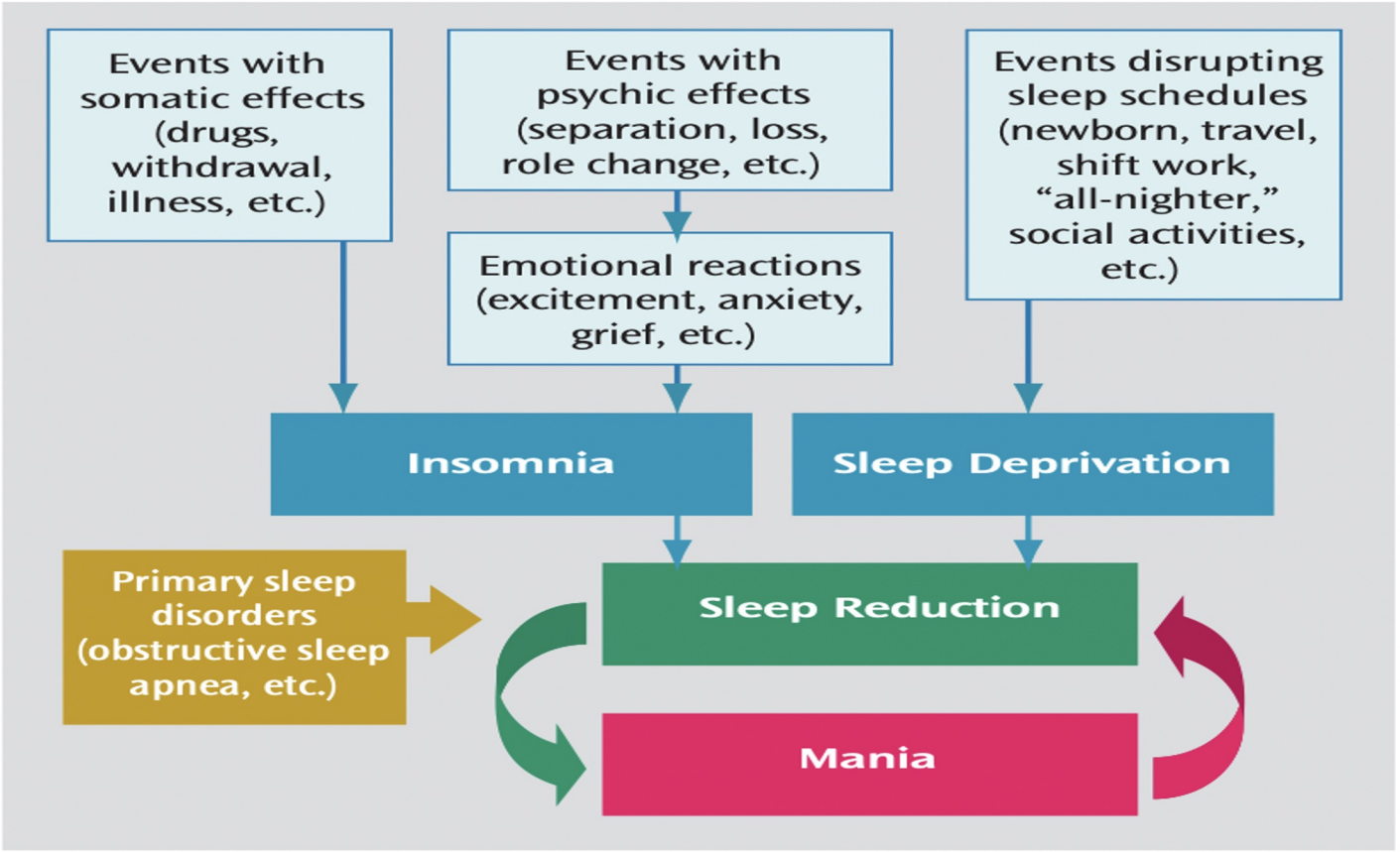
Mingzheng Wu, et al, 2024, Rong Jun Ni, et al, 2025

Why Sleep?

- Microglial dysfunction and altered synaptic pruning
  - Sleep deprivation leads to inflammation, mitochondrial dysfunction, and aberrant synaptic gain because microglia are not doing their job properly
  - Sex differences
    - Eliminating microglia before or during sleep deprived (SD) induced mania (thereby preventing dysfunction and inflammatory cascade) reversed manic behaviors in male mice but not females
    - Differentially expressed genes in prefrontal cortex in males vs females in SD induced mania

Rong-Jun Ni, et al, 2025

Chicken or Egg? Both!



[a] Adapted from Wehr et al. (39).

Plante, et al, 2008

L&D Risk Factors for PPP

Table 3 Independent associations of variables with puerperal psychosis by logistic regression

Variable	*P*	OR (95% CI)
Primiparity	<0.001	3.76 (1.94–7.27)
Delivery complication**	<0.022	2.68 (1.15–6.25)
Pregnancy complication	0.988	1.01 (0.31–3.33)
Caesarean section	0.460	1.56 (0.48–5.0)
Male baby	0.107	1.64 (0.98–2.95)
Gestation period	0.878	0.99 (0.84–1.16)
Identification of participant	0.488	1.00 (0.99–1.01)

**Delivery complications: breech presentation, fetal distress, cord accidents

Robertson Blackmore, et al, 2006

L&D Risk Factors for PPP

Duration of labour	
Puerperal psychosis group	11.15 h±8.01
Control group	6.56 h±3.71

Time of delivery	
Daytime delivery	
Puerperal psychosis group	5 (29%)
Control group	10 (59%)
Nighttime delivery	
Puerperal psychosis group	12 (71%)
Control group	7 (41%)

Sharma, et al, 2007

L&D Risk Factors for PPP

** potential confounder for other studies

At least one complete night's sleep lost in relation to labour/delivery					PP vs PPD; p = 0.423‡
No complete night lost (n = 35)	14.3 % (5)	11.4 % (4)	74.3 % (26)	**0.009**** †	**PP vs No PP/ PPD; p = 0.003 ‡ ****
At least one night lost (n = 29)	44.8 % (13)	17.2 % (5)	37.9 % (11)		PPD vs No PP/ PPD; p = 0.241 ‡

Perry, et al, 2024

Red Flags on L&D Presentation

- Hx of bipolar disorder or postpartum psychosis
- Hx of mood stabilizers or antipsychotics prescribed
- Primiparity
- Loss of sleep with L&D and hospitalization
  - Subjective complaints of sleep
  - Single, lack of support, or declining use of nursery overnight (clues for less sleep)

What Could Have Been Different?

- Coordinating care
  - Not enough to educate patient and family: prevention and early detection is our duty
  - Potential: birth plan created in collaboration with OBGYN, psychiatry, and patient including:
    - Measures to avoid long labor
    - Prompting providers to ask about sleep and factors preventing it (baby in room, breastfeeding, pain, supports)
    - Medication plan while hospitalized
    - Family meeting with providers before birth
  - Assertive use of psychopharmacology?
  - Early psychiatric consultation

What Could Have Been Different?

- Protecting sleep in hospital and beyond
  - Ask about sleep- consecutive hour quantity
    - Goal- minimum 5 hours of consecutive sleep at night (based on literature of postpartum depression prevention as limited data for PPP)
      - Provide medication options if sleep is not adequate, starting with Ativan 1 mg
    - Prioritizing sleep as a vital sign for these patients
  - Minimizing interruptions to sleep when medically appropriate
    - Door signage for non- medical staff
    - Consolidating overnight checks
  - Encouraging baby in nursery to promote rest
  - United recommendation on breastfeeding between OBGYN, pediatrics, and psychiatry depending on patient goals and sleep needs

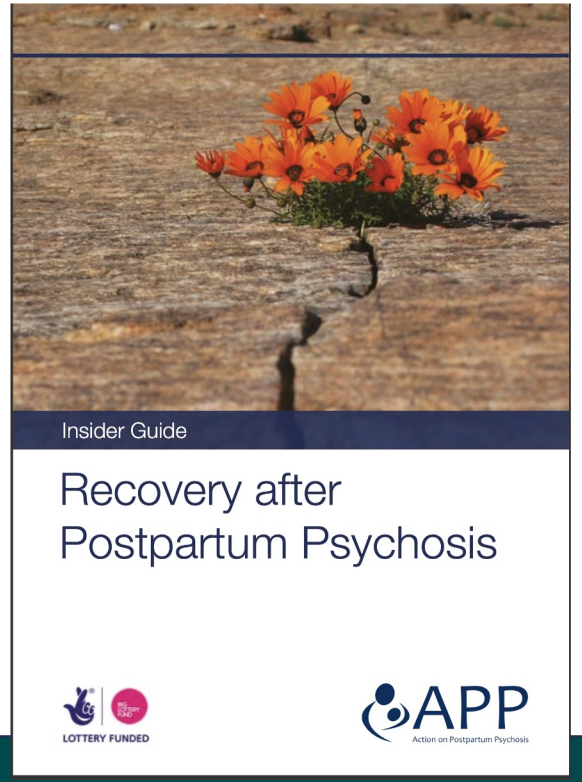
Bergink, 2015; Leistikow, et al 2024

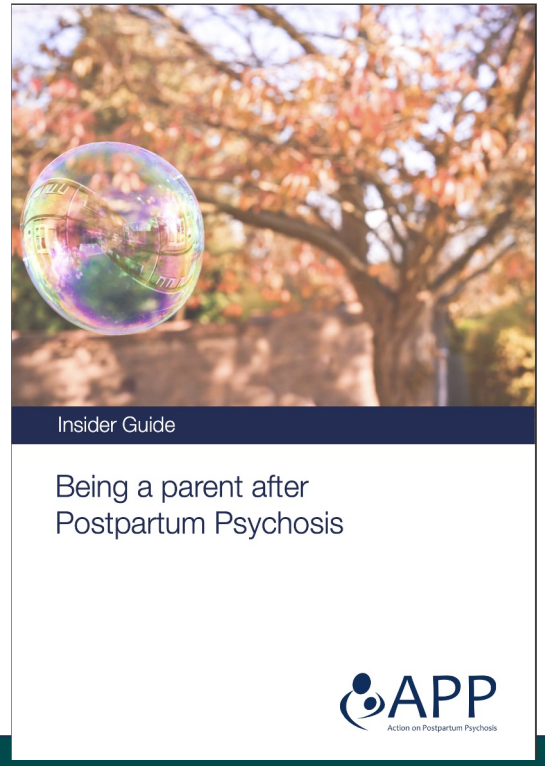
What Could Have Been Different?

- Opportunities for early detection
  - Hospitalization
    - Recognizing early signs of PPP, insomnia, irritability, restlessness with early psychiatric consultation and proactive medication management per guidelines
    - Checking in with nursing shifts about at-risk patients' behaviors
  - Follow ups
    - 1 week follow up with psychiatrist
    - OBGYN postpartum follow up within first 3 weeks per ACOG (still within time frame of highest PPP risk)
    - Encouraging at risk patients to bring a family member for collateral information

Resources

Action on Postpartum Psychosis





Summary

- Patients are more likely to be seen by their OBGYN provider than psychiatry
- Recognizing at-risk patients allow for early prevention strategies
- Proactive management for those at risk of postpartum psychosis with collaboration between specialties that include behavioral and medication management strategies
- All providers can play a role in prevention and reducing risk
- Collaborative care may offer the solution