Depression and Anxiety Throughout the Reproductive Life Cycle of Women

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No Current Conflicts of Interest to Disclose

No review of evidence; all information has been validated in the scientific literature. Citations available on request

There’s much more data on depression than anxiety, but anxiety disorders appear to track with depression.

Agenda

- Overview of the Role of Estrogen in Women
- Menarche and Mental Health
- Menstrual Cycle and Mental Health
- Pregnancy and Mental Health
- Menopause and Mental Health
- What We Can Do!

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Depression is bad for women in all phases of life

- Neuronal damage
- Increased inflammation
- Vulnerability to cardiac disease, diabetes II
- Cognitive difficulties
- Less social interaction
- Decreased self-esteem
- Vulnerability to developing PTSD
- Decreased self-care
- Increased stress chemistry
- Fewer medical appts
- Poor adherence
- Poor nutrition/more obesity
- Lack of exercise
- Less breast feeding
- Increases substance use
- Risk factor for dementia
- Increased mortality
- 2-3x higher medical costs
- Higher divorce rate

What We Can Do for All Women

- Screen and recognize
- Ask about suicidal thoughts
- Educate, including cultural considerations, sexuality, self-determined choices
- Provide treatment options, not orders
- Prescribe medications when needed
- Behavioral Activation! Everyone can do it!
- Speak out against stigma!
- Provide support, know referrals, call patient back

Estrogen Rate of Change Produces Vulnerability to Mood Shifts

Women are more vulnerable to develop behavioral health symptoms, especially depression and anxiety during periods of rapid change in estrogen levels

- Menarche: rapid differentiation from boys; depression rates become 2x higher
- Menses: rapid drop in estrogen after ovulation (day 14-17) causes mood changes
- Pregnancy: rapid increase and high levels of estrogen
- Postpartum: rapid plummeting of estrogen after delivery
- Perimenopause—sputtering levels of estrogen prior to cessation of menses OR chemical menopause with rapid drop of estrogen levels (chemical or surgical)

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Age at Menarche

Normal: 8-13 years

Age at menarche gradually dropping.

- Black<Hispanic<White
- Higher weight→earlier M
- More ACES→earlier M
- Low fitness level→earlier M
- Genetic factors affect M
- Environmental exposures

Psychological impact of puberty on younger children→Stress!

TABLE 2 Frequency of Age at Menarche for 1 Randomly Selected Imputed Data Set

Age, y	Frequency	Percent
7	12	0.15
8	26	0.33
9	231	2.96
10	538	6.90
11	1496	19.17
12	2465	31.59
13	1904	24.40
14	770	9.87
15	256	3.28
16	74	0.95
17	20	0.26
18	4	0.05
19	3	0.04
20	1	0.01
22	1	0.01
24	1	0.01

Menarche and Mental Health

- After menarche rates of depression and other behavioral problems in girls double.
- Teen girls have to negotiate the emotional effects of hormone cycles each month, usually without any knowledge of what's happening to them.
- Being "premenstrual" is a derogatory label for emotion in teen girls.
- Most girls have some shame associated with menses.
- Preteens and teens have to understand and manage new sexual drives safely

What We Can Do

- Schools and pediatricians screen for depression—self report is best!
- Schools, pediatricians, parents provide education—especially to girls under 11—about the broad life changes that come with menses, including changes in peer relationships.
- Acknowledge mood swings, and teach coping strategies; reduce shame;
- Refer for treatment when clinical depression, anxiety,or decreased function occur.
- Prescribe antidepressant medications when appropriate.
- LISTEN

Do you want to hear what I'm feeling or do you want to hear what I'm <u>really</u> feeling

--Carol Gilligan

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Premenstrual Dysphoric Disorder

- Mood swings, increased interpersonal sensitivity
- Irritability, anger, conflicts
- Depressed, hopeless, worthless
- Anxious, tense or on edge

Symptoms start 7-10 days before onset of menses, and improve quickly after menses start.

- Loss of interest
- Fatigue or low energy
- Excess/inadequate sleep
- Appetite change/cravings
- Feeling out of control
- Somatic symptoms—digestion, pain, HA
- Functional impairment is significant

What We Can Do

- Ask patient to track moods daily for 2 cycles. Notice whether symptoms resolve completely after menses or they linger at a lower level.
- Prescribe an SSRI: continuous treatment or only days 20-32.
- Prescribe oral contraceptive
- Therapy may help with coping with emotions
- Provide support especially if job is at risk and accomodations are needed

Patient and partner need education!

Perinatal Depression: Epidemiology

- Prevalence in the US is about 10-15% with variability between studies
- If mom has prior depression, risk is 16%
- Genetic contribution: 40%
- Onset: 50% antepartum, 50% postpartum
- For postpartum onset, 54% in first month, 40% in months 2-4
- Diagnosis of depression is missed at least 50% of the time.

It's not just *depression*…

- Depression
- Mania (usually unpleasant, not euphoric)
- Psychosis (0.4% incidence)
- Panic Attacks
- Generalized anxiety (catastrophizing)
- Agoraphobia (fear of leaving home)
- Obsessions and compulsions
- PTSD

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Depression is bad for mothers and babies

- Epigenetic changes in utero and after birth
- Dysregulation HPA axis and increased fetal exposure to high cortisol
- Maternal immune compromise
- Changes in brain connectivity in fetus and neonate—high reactivity, poor habituation, emotion dysregulation, hypotonia, attachment problems.
- SIDS

- Less prenatal care
- Less adherence with medications and vitamins
- Poor nutrition
- Lack of exercise
- Difficulty sleeping
- Possible substance use
- Poor social supports
- Less breastfeeding
- Fewer vaccinations
- More childhood illness

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Peripartum Depression and Anxiety:
Behavioral Health Considerations

- Hormonal effects of pregnancy in the brain
- Genetic factors
- Prior history of behavioral health symptoms
- Prior behavioral health treatment
- Psychological effects of pregnancy
- Social Determinants of Health considerations for pregnant clients
- History of trauma, including pregnancy-related trauma (i.e. stillbirth or demise, abandonment)

Genetic Factors

- Family hx of pregnancy-related behavioral health symptoms or treatment: moms, grandmoms, sisters, aunts
- Family hx of Bipolar Disorder: men and women
- Genes confer 40% of risk for behavioral health symptoms

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Client's behavioral health history

- Prior hx of pregnancy-related behavioral health sxs with or without treatment.
- Prior hx of depression, anxiety or other behavioral health symptoms or diagnoses (obsessions/compulsions, psychosis, panic attacks, hoarding, etc)
- Prior hx of substance use: alcohol, MJ, street drugs, prescription drugs
- Abrupt stopping of therapy or medications

Psychological effects of pregnancy

- Unintended or unwanted pregnancy
- Effects on relationships with family and partners
- Past pregnancy experiences: miscarriage, complications, stillbirth, medical illness
- Past experience of being a mother: satisfying or problematic
- Body image issues
- Job and career anxiety
- Unrealistic expectations

Social Determinants of Health Factors

- Housing and/or food insecurity
- Legal issues
- Safety, esp in current living situation
- Insurance and copays
- Impact of pregnancy on employment
- Lack of support in family and community
- Adverse life events: divorce, abandonment, housing insecurity, legal

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Trauma exposure

Currently experiencing abuse

Past history of sexual or physical abuse

Childhood sexual or physical abuse

Witnessed family or community violence

Usual way people handle trauma is to avoid thinking about it. Pregnancy may make that impossible.

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What to listen/look for

- High anxiety about the fetus
- Poor self esteem
- Doubting ability to be a good mom
- Loss of interest, apathy
- Nonadherence with prenatal or postpartum care
- Poor weight gain
- Not taking care of self—ie poor hygiene, poor self management of medical problems
- Trouble taking care of other children
- Relationship problems

Danger symptoms: preoccupation with good and evil, religion; suspiciousness, auditory or verbal hallucinations, bizarre ideas, new obsessions/compulsions, suicidal or homicidal thoughts, complete inability to sleep, belief in signs.

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Does this include baby blues? No!

Baby blues:

- occur within the first two weeks after delivery
- last 2-5 days, and do not cause impaired function (though client may be tearful and worried).
- resolve within 2 weeks post partum
- 70% of women have baby blues (thought to be a normal response to the rapid drop in estrogen at delivery)

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What We Can Do

- Screen for depression in each trimester and at 1, 3, 6 months postpartum: depression antepartum predicts depression post partum: identify and treat early! Self-report is best. PHQ 9=Edinburgh validity
- Recognize that women may be afraid to report mental health symptoms. Rates of screening positive are often low.
- Avoid conscious or unconscious judgment re: choices, lifestyles, relationships.
- Validate distress, support strengths, provide education, verbalize stigma challenges and cultural issues.
- Support adherence with appointments, medications, provider recommendations
- Provide resource referrals for SDH needs
- Discuss referral for treatment. Discuss medication.
- Schedule more frequent appointments in OB practice
- Call the patient immediately if she no shows.

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Nonpharmacologic Treatments

- Psychotherapy, especially cognitive-behavioral or interpersonal models
- Mindfulness: mindful breathing, relaxation, letting go of thoughts

- Behavioral Activation
- Light therapy: must be 10,000 lux; start for 10 mins a day and gradually increase.
- Exercise
- Acupuncture

Medication Treatments for Peripartum Depression or Anxiety: moderate-severe

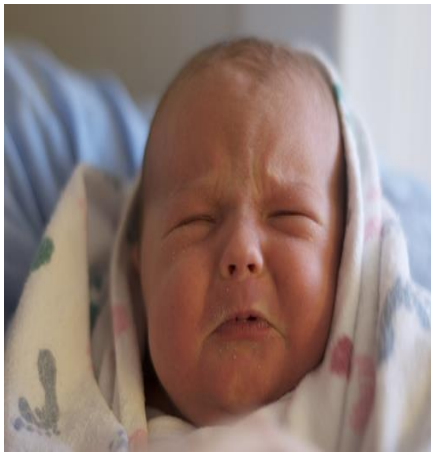
- **SSRIs** (fluoxetine, sertraline, citalopram, escitalopram) have the most data showing good benefit without any harmful fetal effects. **Bupropion** is also considered low risk. No additional miscarriages, malformations, heart problems, risk for autism, pulmonary hypertension
- **SNRIs** (duloxetine, venlafaxine, desvenlafaxine) are more recent, with less accumulated data. There is no evidence of malformation; birthweight may be reduced. This class of medication can increase SBP by 5-10 mmHg in the mother.
- **Antipsychotic medications**: insufficient safety data. Quetiapine is a large molecule and only 25% of maternal dose enters fetal circulation.
- **Stimulants:** insufficient safety data. Case reports of no malformations. Babies have lower birthweight; stimulants can increase SBP in mom.
- **Benzos:** insufficient data; some data shows early closing defect in skull day 32, babies may be oversedated, floppy, poor breathing at birth.

Psychotropic Treatment During Pregnancy: Pearls

- The risks associated with untreated depression are greater for both mom and baby than the risks of medication
- There is little risk for breastfeeding babies whose mothers are taking medication (except clozapine, benzos)
- Avoid sending a new mother with untreated depression home alone with a new baby
- Women taking a medication for treatment of depression have a high rate of relapse if they stop the medication
- Women who have seizures, bipolar disorder, or need anticonvulsant medication should be managed in consultation with a psychiatrist or neurologist with careful discussion of risks to the fetus.
- Lithium is the lowest risk mood stabilizer (0.5% Ebstein's)

Newborn Serotonin Syndrome

- Tachycardia
- Myoclonus
- Restlessness
- Tremor
- Shivering
- Hyperreflexia
- Incoordination
- Rigidity
- Nausea
- Tachypnea



Symptoms are due to high levels of serotonin in the baby's blood+ immature liver. Babies may have trouble eating and sleeping and be difficult to soothe. Reducing noise, light, handling is usually effective. Some babies spend 1-2 nights in NICU stepdown.

Women who are willing to risk relapse in order to avoid this may stop antidepressants in the 9th month and restart at delivery.

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Perimenopause and Depression/Anxiety

Perimenopause sxs

- Irregular cycles
- Hot flashes
- Sleep disturbances
- Vaginal dryness
- New-onset depression (OR 2.5)
- Menstrual migraine
- ↓Memory, cognition
- Poor balance
- Arthralgias, myalgias

Chemical Menopause

- Same sxs, sudden onset

Estrogen Facts

- Longer duration of menses or long duration of OC reduces symptoms

Treating Perimenopausal Symptoms

- Sleep problems: start with sleep hygiene, mindfulness relaxation and breathing. Medication may be needed. Avoid benzos
- Depression: SSRI or SNRI; these medications may reduce hot flashes also. Don't forget the psychological effects of menopause! Consider therapy
- Vasomotor symptoms: hormonal replacement (estrogen) May also treat depression!

Resources

ProjectTEACH

TRAINING AND EDUCATION FOR THE ADVANCEMENT OF CHILDREN'S HEALTH

A Project Funded by

NEW YORK STATE OF OPPORTUNITY. Office of Mental Health

info@projectteachny.com

http://projectteachny.org/mmh

MGH CENTER for Women's Mental Health

Reproductive Psychiatry Resource & Information Center

https://womensmentalhealth.org/

The National Pregnancy Registry for Psychiatric Medications:

All pregnant women between the ages of 18-45 with a history of psychiatric illness are eligible to enroll in the registry.

Watch the Webinars!

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We can work together for all women, their children, partners and families!

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