- **Beyond the Cycle:** Understanding Hormonal Health and Its Impact on Mental Well-Being: Understanding, Identifying, and Managing Mental Health Across Premenopause, Perimenopause, Pregnancy, and Menopause
- ***Presenter: Ciara O'Connor, PA-C***

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Beyond the Cycle: Intro to Women's Mental Health

Understanding, Identifying, and Managing Mental Health Across Premenopause, Perimenopause, Pregnancy, and Menopause

Objectives

- **Understand the Impact of Hormonal Fluctuations on Mental Health Disorders Across the Lifespan**
  Explore how hormonal changes contribute to mental health disorders at different life stages, considering the influence of age and ability/disability.
- **Identify Common Mental Health Disorders in Premenopausal, Perimenopausal, Pregnancy, and Menopausal Women**
  Discuss prevalence, presentation, and how ability/disability status may intersect with hormonal changes in conditions like ADHD, depression, and anxiety.
- **Evaluate Effective Management and Treatment Approaches**
  Review therapeutic interventions, pharmacological treatments, and lifestyle modifications that address both hormonal and sociocultural factors.

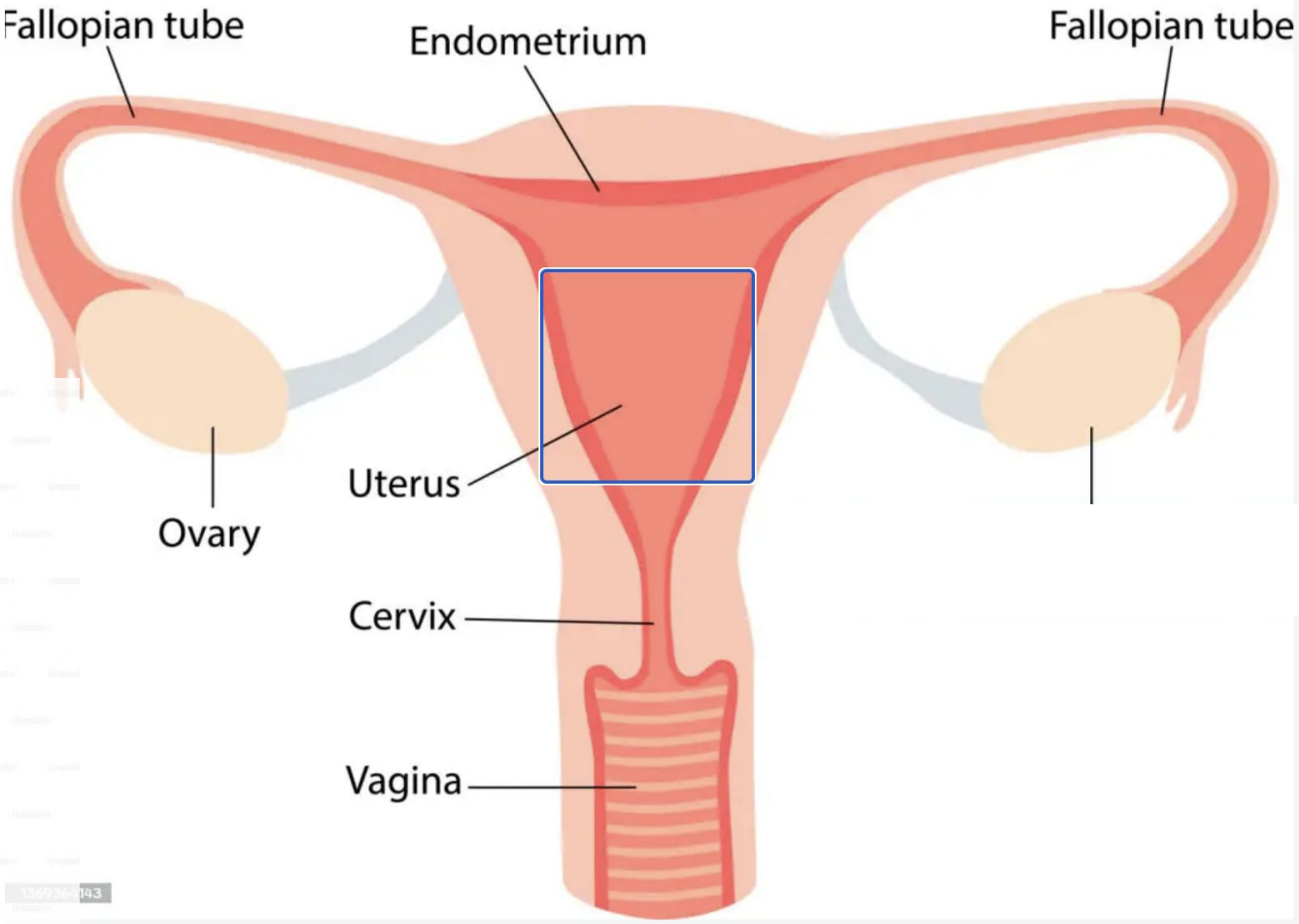
Hormonal Overview

Key Hormones:

- **Estrogen:** Modulates serotonin pathways; fluctuations may impact mood, cognition, and emotional sensitivity.
- **Progesterone:** Interacts with GABA receptors, contributing to anxiolytic and sedative effects.

- Source: Toffoletto et al., 2014, Psychoneuroendocrinology

Female reproductive system



The Seasons of Hormonal Changes

Premenopause: Stable hormone levels in reproductive years.

Perimenopause: Hormone fluctuations leading to changes in mood and cognition.

Pregnancy: Increases in estrogen and progesterone.

Menopause: Low estrogen and progesterone, with significant implications for mental health.

"Perimenopause marks the end of regular ovulation, which leads to significant changes in estrogen and progesterone." – *Textbook of Women's Reproductive Health*

Exploring the Connection Between Reproductive Health and Emotional Well-Being

Reproductive Hormonal Fluctuations:

Conditions like PCOS, PMDD, and Endometriosis disrupt hormone levels, which directly influence mental health by affecting mood-regulating neurotransmitters (e.g., serotonin, dopamine)as well as impacting quality of life and physical health.

PCOS: Polycystic Ovary Syndrome
(a bit of a misnomer)

PCOS is diagnosed using the **Rotterdam Criteria** (requires 2 out of 3):

1. **Irregular or Absent Ovulation**:
    - Irregular menstrual cycles or missed periods (amenorrhea).
2. **Hyperandrogenism** (excess male hormones):
    - Signs may include acne, excessive hair growth on the face/body (hirsutism), and hair thinning on the scalp (androgenic alopecia).
3. **Polycystic Ovaries**:
    - Enlarged ovaries with multiple fluid-filled sacs (cysts) visible on an ultrasound.

PCOS- what does this mean for them?

Reproductive:

- Irregular periods or no periods.
- Infertility or difficulty conceiving due to lack of ovulation.
- Increased risk of cancer

Androgen Excess:

- Acne, hirsutism, and male-pattern baldness.

Metabolic Issues:

- Insulin resistance or type 2 diabetes.
- Weight gain, particularly around the abdomen.

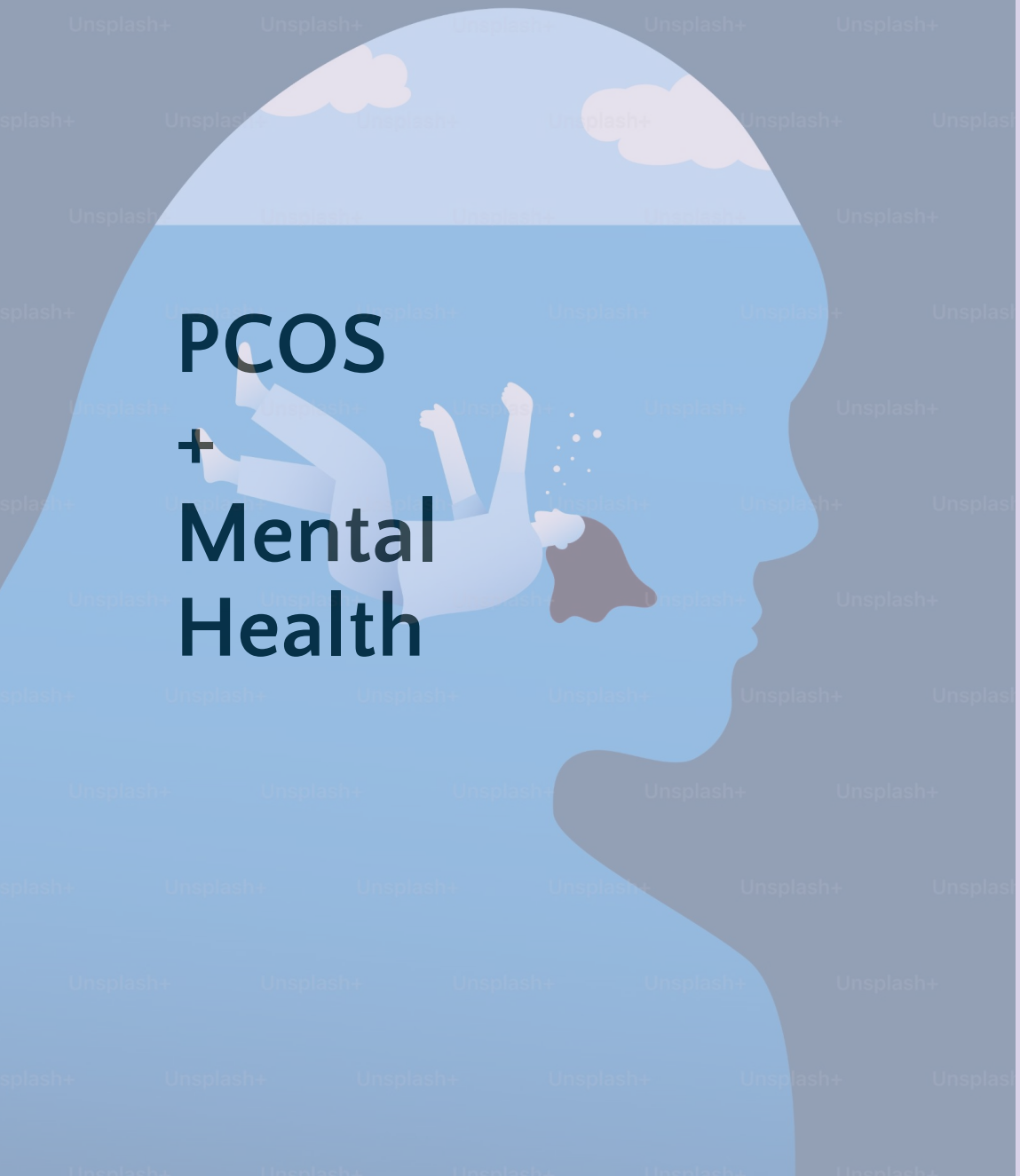
Emotional and Psychological Effects:

- Anxiety, depression, and body image concerns.

Screening PCOS patients for Eating Disorders

- "A recent systematic review and meta-analysis published in *The Journal of Clinical Endocrinology & Metabolism* in 2024 looked at the link between PCOS and eating disorders. It combined data from 20 cross-sectional studies, including nearly 29,000 individuals with PCOS and over 250,000 controls.
- The results showed that people with PCOS had a **53% higher likelihood of having any eating disorder** compared to those without PCOS. This was especially true for **bulimia nervosa and binge eating disorder**. Interestingly, the risk for **anorexia nervosa** did not show a significant increase."

Source: Sadeghi et al., JCEM, 2024



PCOS + Mental Health

Individuals with Polycystic Ovary Syndrome (PCOS) are at a heightened risk for mental health disorders, particularly anxiety and depression.

Notably, studies that controlled for Body Mass Index (BMI) showed a smaller difference between groups, suggesting that BMI may influence the relationship between PCOS and these mental health conditions.

These studies highlight the importance of routine mental health screening and comprehensive care for individuals with PCOS to address both physical and psychological aspects of the condition.

Source: Barry et al., Human Reproduction, 2011

How can you help?

- Encourage them to see their OBGYN- keeping in mind that there isn't a certain "look" someone has to have to experience PCOS. Not all patients with PCOS have an elevated BMI.
- Encourage more protein and balanced meals
- Baby steps- ask them what their morning looks like
- Focus on what we can add- not take away to reduce incidence of disordered eating

PMDD aka PMS on steroids

PMDD is a **severe form of premenstrual syndrome (PMS)** that significantly impacts emotional and physical well-being. It is classified as a depressive disorder in the DSM-5 and affects individuals with menstrual cycles.

When PMDD Presents

- Symptoms typically begin **7–10 days before menstruation** and subside within a few days after menstruation starts.
- Significant disruption to personal, social, or occupational functioning.

Common Features and Symptoms

1. **Emotional Symptoms** (more severe than PMS):
   - Intense mood swings, irritability, and anger.
   - Severe anxiety and depression.
   - Feelings of hopelessness or low self-esteem.
   - Difficulty concentrating.
2. **Physical Symptoms**:
   - Fatigue and low energy.
   - Sleep disturbances (insomnia or hypersomnia).
   - Bloating, breast tenderness, and headaches.
   - Joint or muscle pain.
3. **Behavioral Changes**:
   - Decreased interest in usual activities.
   - Appetite changes or food cravings.

PMDD: Diagnostic Criteria

At least one of the following emotional symptoms must be present:

1. Marked affective lability (e.g., mood swings, feeling suddenly sad or tearful, or increased sensitivity to rejection).
2. Marked irritability or anger or increased interpersonal conflicts.
3. Marked depressed mood, feelings of hopelessness, or self-deprecating thoughts.
4. Marked anxiety, tension, and/or feelings of being keyed up or on edge.

In addition, one or more of the following must be present (to total at least five symptoms overall):

5. Decreased interest in usual activities (e.g., work, school, friends, hobbies).
6. Subjective difficulty in concentration.
7. Lethargy, easily fatigued, or marked lack of energy.
8. Marked change in appetite; overeating; or specific food cravings.
9. Hypersomnia or insomnia.
10. A sense of being overwhelmed or out of control.
11. Physical symptoms (e.g., breast tenderness or swelling, joint or muscle pain, a sensation of "bloating," or weight gain).

- Symptoms are limited to the luteal phase of the menstrual cycle and absent during the follicular phase.
- Symptoms cause **clinically significant distress** or interfere with daily functioning.

- **Differential Diagnosis**: Rule out other mood or anxiety disorders that might worsen premenstrually.
- **Assessment Tools**:
  - Symptom tracking over at least **two menstrual cycles** using tools like apps or calendars

Link of suicide and self harm with PMDD

- A global study published in *BMC Psychiatry* in 2022 looked at people with prospectively confirmed PMDD and found something staggering: 34% had attempted suicide at some point, and 72% had experienced suicidal thoughts.

- This highlights just how serious PMDD can be , and why it's critical for providers to take these symptoms seriously and screen for suicide risk.

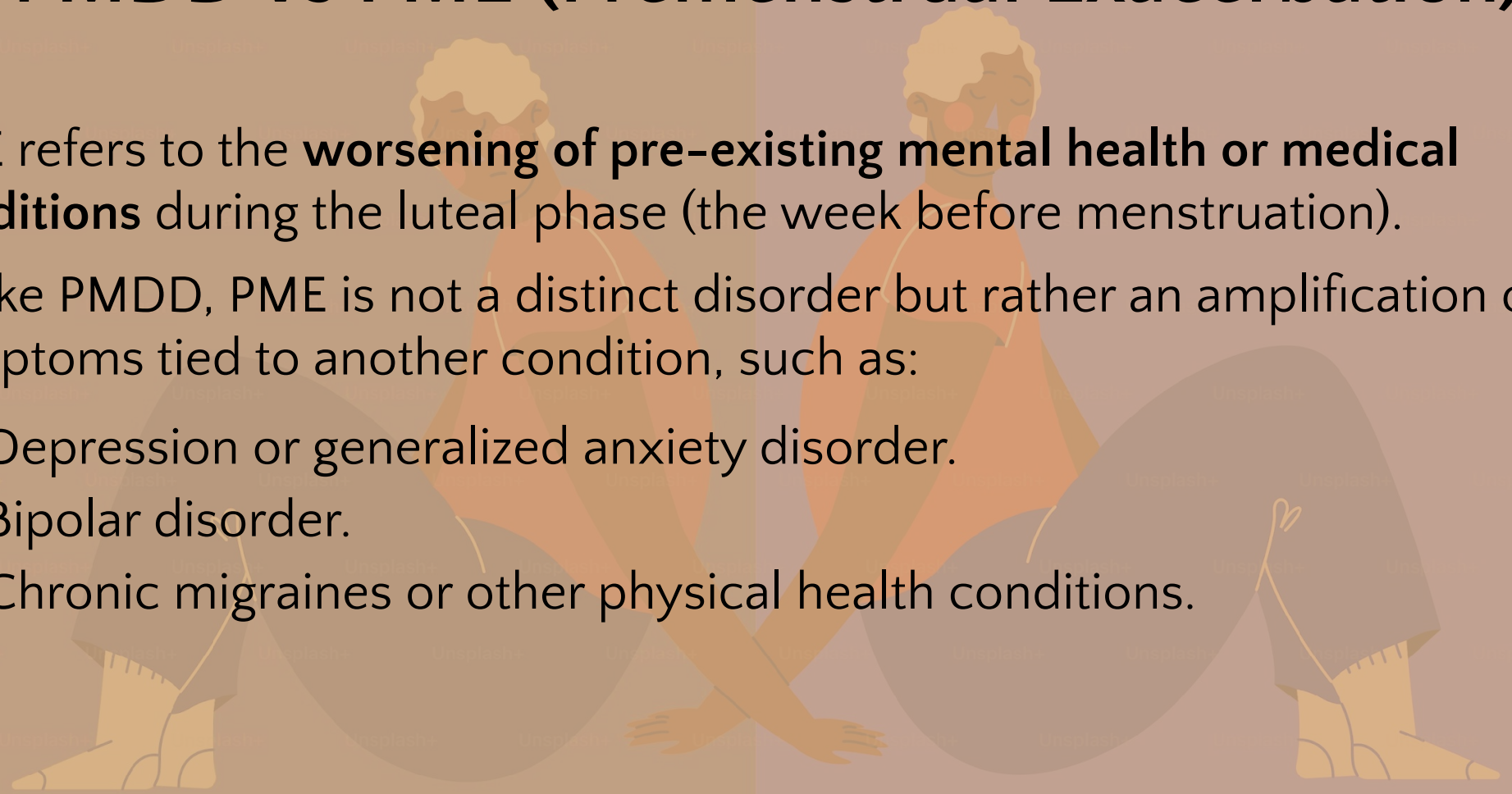
Source: Eisenlohr-Moul et al., BMC Psychiatry, 2022

PMDD vs PME (Premenstrual Exacerbation)

PME refers to the **worsening of pre-existing mental health or medical conditions** during the luteal phase (the week before menstruation).

Unlike PMDD, PME is not a distinct disorder but rather an amplification of symptoms tied to another condition, such as:

- Depression or generalized anxiety disorder.
- Bipolar disorder.
- Chronic migraines or other physical health conditions.



What's the difference?

Feature	PMDD	PME
Core Issue	A distinct mood disorder linked to the menstrual cycle.	Worsening of an existing condition during the luteal phase.
Symptom Timing	Symptoms occur exclusively during the luteal phase and resolve with menstruation.	Symptoms are part of an ongoing condition but intensify premenstrually.
Underlying Condition	No pre-existing mental health diagnosis needed.	Linked to a pre-existing mental health or physical health condition.
Diagnosis	DSM-5 criteria for PMDD.	Diagnosed based on the exacerbation of an existing condition.

Think of **PMDD** as a storm that **only hits before your period**, and **PME** as a condition that's **always there**, but the storm **makes it worse** every cycle.

Why differentiating matters

Treatment approaches may differ:

- PMDD often requires **hormonal treatments** or medications targeting luteal-phase symptoms (e.g., SSRIs, birth control).
- PME typically involves **adjustments to existing treatments** for the underlying condition (e.g., adjusting antidepressants during the luteal phase, prescribing birth control to prevent hormone fluctuations which could trigger hypomania/mania in some patients)

PME can mimic PMDD, so careful **tracking of symptoms across cycles** is essential for accurate diagnosis.

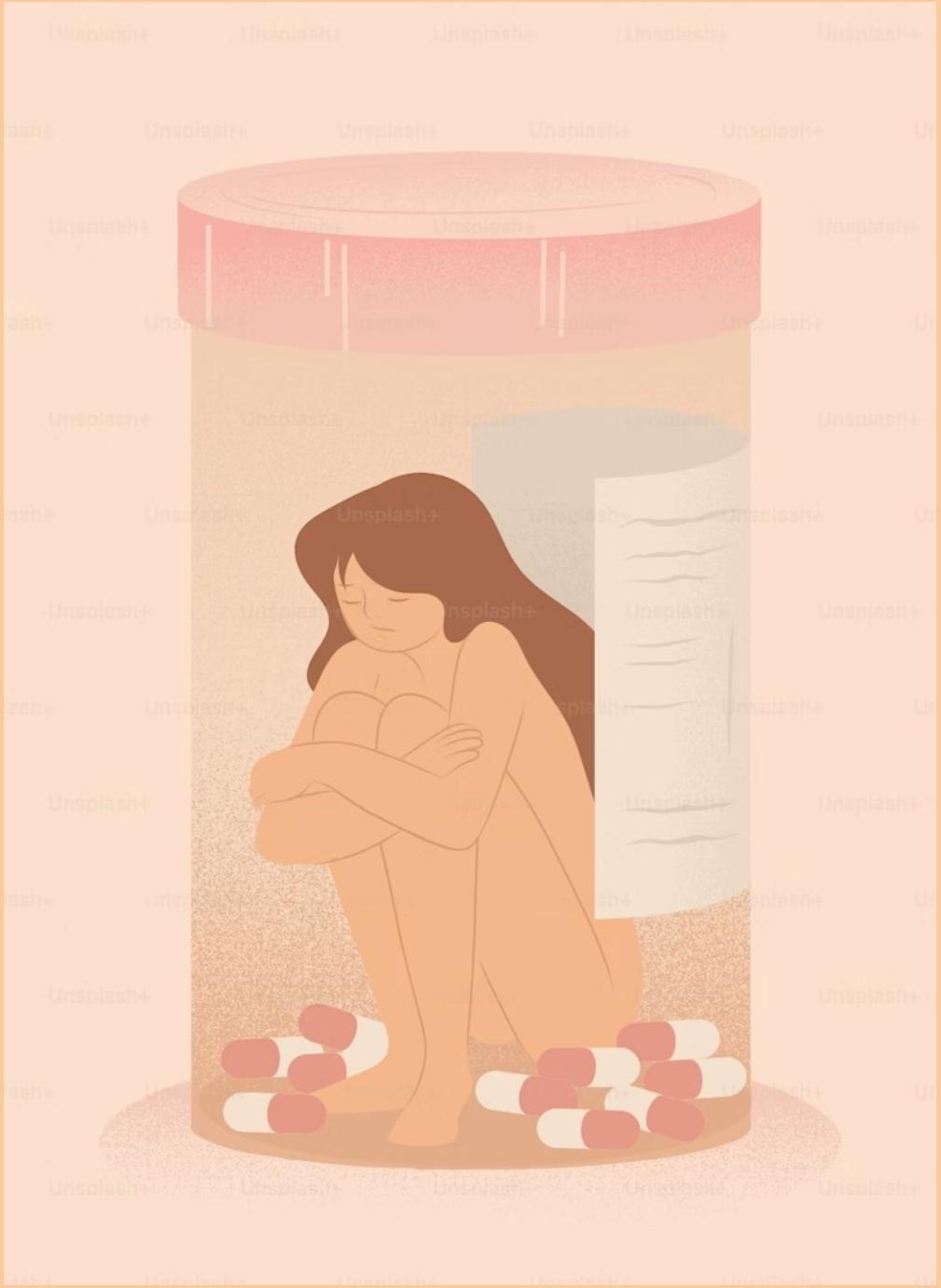
PMS + ADHD

1. Hormonal Fluctuations and ADHD Symptoms:

- **Estrogen and Dopamine Link**:
  - Estrogen enhances dopamine, a key neurotransmitter for focus and mood regulation.
  - During the luteal phase (PMS period), **estrogen levels drop**, leading to:
    - Worsened focus and executive functioning.
    - Increased impulsivity and emotional dysregulation.
- **Progesterone Impact**:
  - Progesterone, which rises during the luteal phase, can further contribute to mood instability and fatigue.

Sources:

- Becker & Chartoff, *Neuropsychopharmacology*, 2019
- Haimov-Kochman & Berger, *Journal of Clinical Psychiatry*, 2014
- Gingnell et al., *Psychoneuroendocrinology*, 2012



2. PMS Can Exacerbate ADHD-Related Challenges:

- Heightened **brain fog** and forgetfulness.
- Amplified emotional reactivity, including irritability and frustration.
- Difficulty managing time and tasks.

3. ADHD Medications May Be Less Effective:

- Medications like stimulants (e.g., Adderall, Vyvanse) rely on stable dopamine levels.
- **Luteal phase drop in estrogen** can reduce the medications' efficacy, leading to:
  - Shorter duration of focus.
  - Increased need for higher or adjusted doses during this time.
  - Feelings of medications "not working" as well.

Practical Implications

Symptom Tracking:

- Individuals with ADHD should track their symptoms across their menstrual cycle to identify patterns.

Medication Adjustments:

- Healthcare providers may adjust ADHD medication dosages or timing during the luteal phase to account for hormonal changes.

Supporting Mental Health:

- Co-management with mood-stabilizing strategies (e.g., SSRIs, therapy) can help reduce emotional volatility.

Lifestyle Modifications:

- Stress management, regular sleep, and physical activity can mitigate some PMS-related challenges.

Outsourcing Dopamine

- When high-functioning individuals with unmedicated ADHD or dopamine deficits push through daily life, they often outsource dopamine to cope. This can happen even though they’re very successful at their jobs or have good grades

Encourage your ADHD patient to see a psychiatrist- no matter what age!
Over time, outsourcing dopamine can take a huge toll on mental and physical health

When high-functioning individuals with unmedicated ADHD or dopamine deficits push through daily life, they often outsource dopamine to cope. This can happen even though they're great at their job or have good grades

This can look like:

- binging/snacking on sugar or snacks throughout the day
- chasing urgency by procrastinating until the last minute
- Relying on anxiety, shame and adrenaline to complete tasks. Sounds like: "I do my best work under pressure," "I should be able to do this- if only I weren't so lazy."

- **While it may keep them going temporarily, this cycle of stress can quietly drain the nervous system and take a serious toll on both physical and mental health.**

Key Take away

For individuals with ADHD, PMS is not just a physical challenge—it directly impacts cognitive and emotional functioning, often requiring tailored adjustments to medication and management strategies.

For someone who already struggles to focus and with executive dysfunction as their baseline, PMDD can be debilitating in those with ADHD

How PMS affects Autistic people

For individuals who are autistic, PMS can amplify existing sensory, emotional, and social challenges, making this phase particularly difficult.

Cont...

Emotional Dysregulation:
Many autistic people already experience heightened emotional sensitivity. PMS-related mood swings and irritability can further intensify:

- Anxiety and overwhelm.
- Meltdowns or shutdowns.
- Difficulty regulating emotions.

Sensory Sensitivities:
Hormonal changes during PMS can worsen sensory processing issues, including:

- Heightened sensitivity to sound, light, or touch.
- Discomfort with changes in routine or environment.
- Physical PMS symptoms like bloating and cramps may feel more distressing due to sensory hypersensitivity.

3. Social and Communication Challenges:
Increased irritability and emotional reactivity during PMS may exacerbate social difficulties, leading to:

- Trouble interpreting social cues.
- Avoidance of social interactions.
- Increased miscommunication or conflicts.

4. Executive Functioning Difficulties:
Hormonal fluctuations can worsen autistic people's challenges with organization, planning, and focus, making it harder to manage daily tasks.

5. Co-occurring Anxiety or Depression:
Many autistic people are already prone to mental health challenges. PMS may heighten feelings of sadness, anxiety, or overwhelm.

Practical strategies

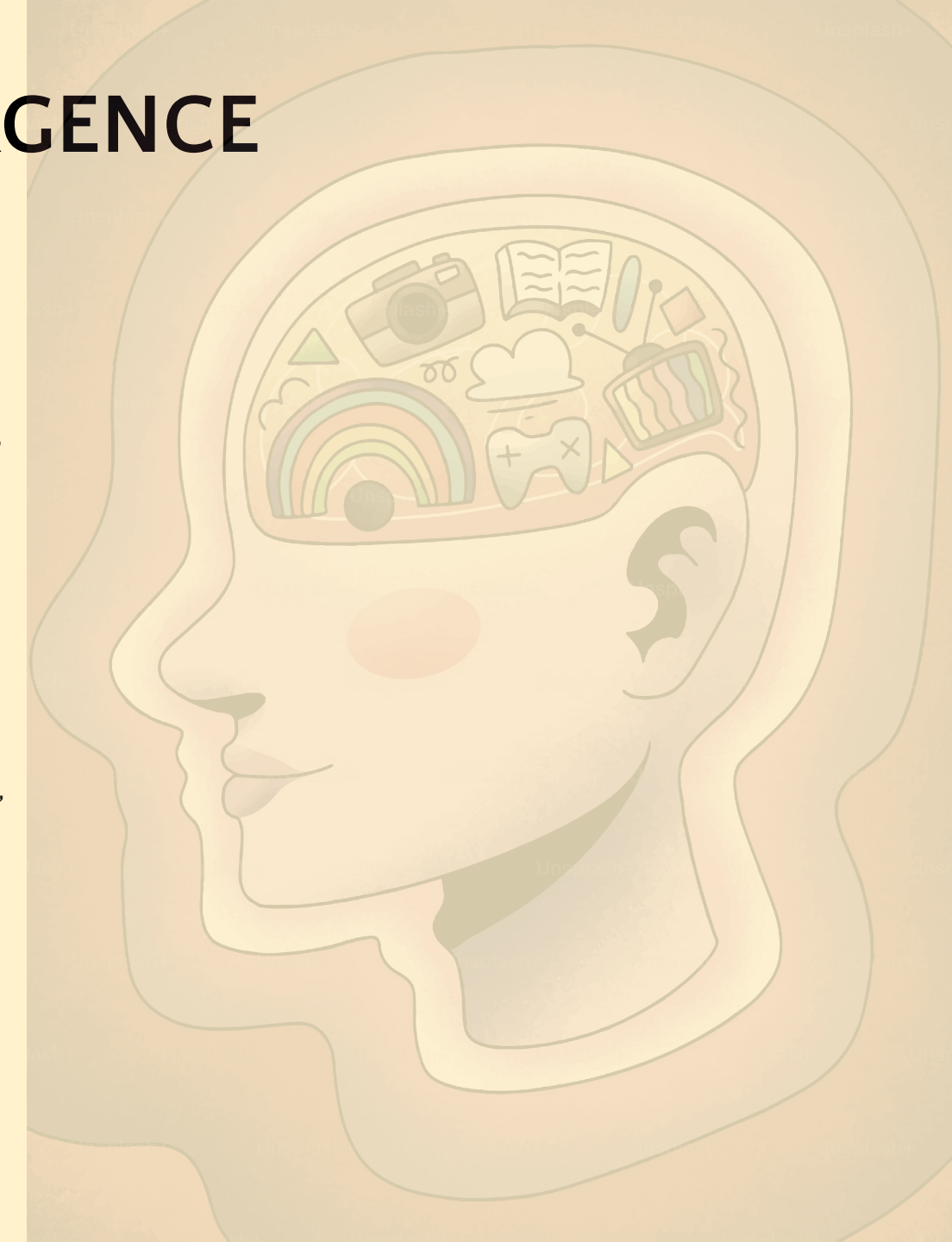
1. **Symptom Tracking**:
   - Tracking the menstrual cycle can help predict PMS-related changes and plan supports accordingly.
2. **Sensory-Friendly Solutions**:
   - Use calming strategies like noise-canceling headphones, weighted blankets, or dim lighting to manage sensory overload.
3. **Emotional Support**:
   - Therapy or counseling to develop coping mechanisms for mood swings and emotional regulation.
4. **Medical Interventions**:
   - Consultation about options like hormonal birth control to reduce PMS symptoms.
5. **Routine Adjustments**:
   - Simplify schedules and routines during PMS to reduce stress and overstimulation.

PMDD AND NEURODIVERGENCE

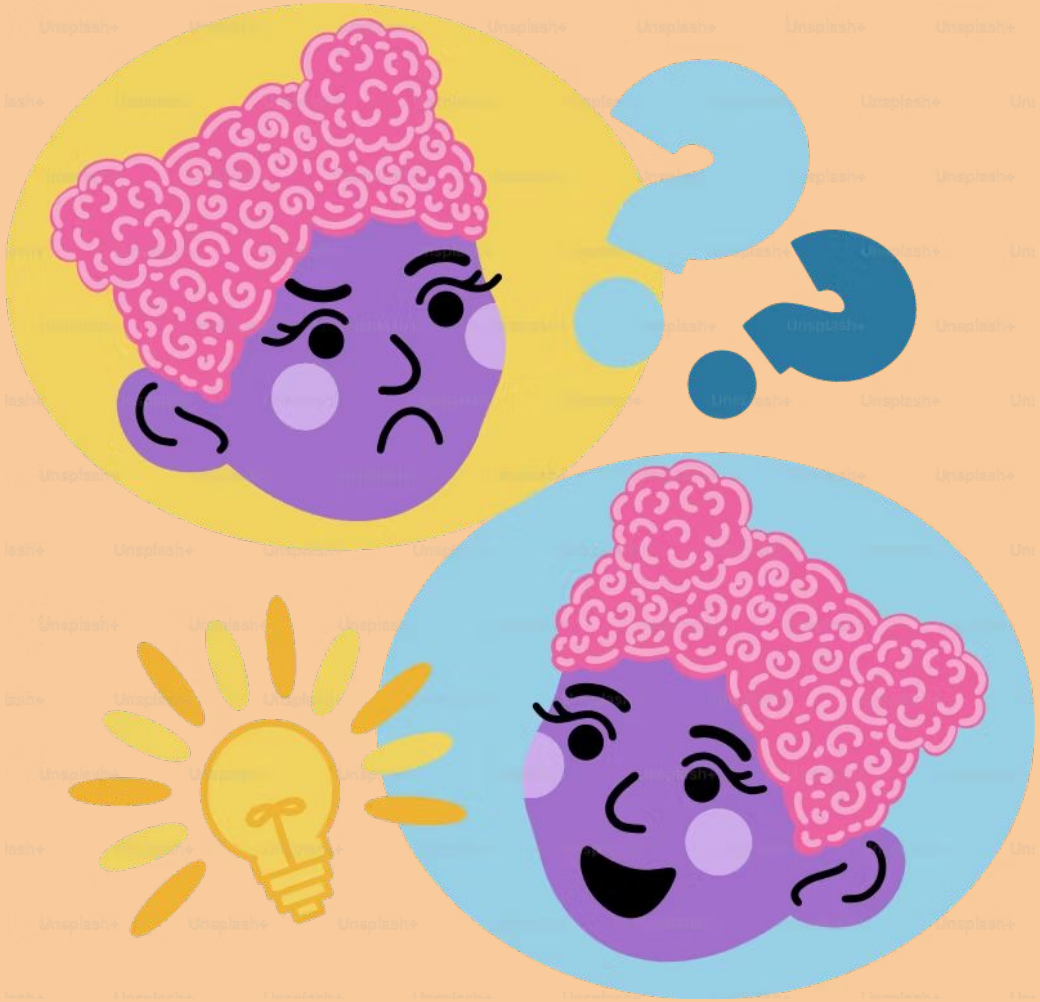
Autism, ADHD, and PMDD

"PMDD disproportionately affects people with ADHD and autism, with up to 92% of autistic women and 46% of women with ADHD experiencing PMDD, though estimates vary. There is no agreed-upon cause of PMDD, nor is it known why it affects certain populations more than others, though there are various theories. Possible explanations include:

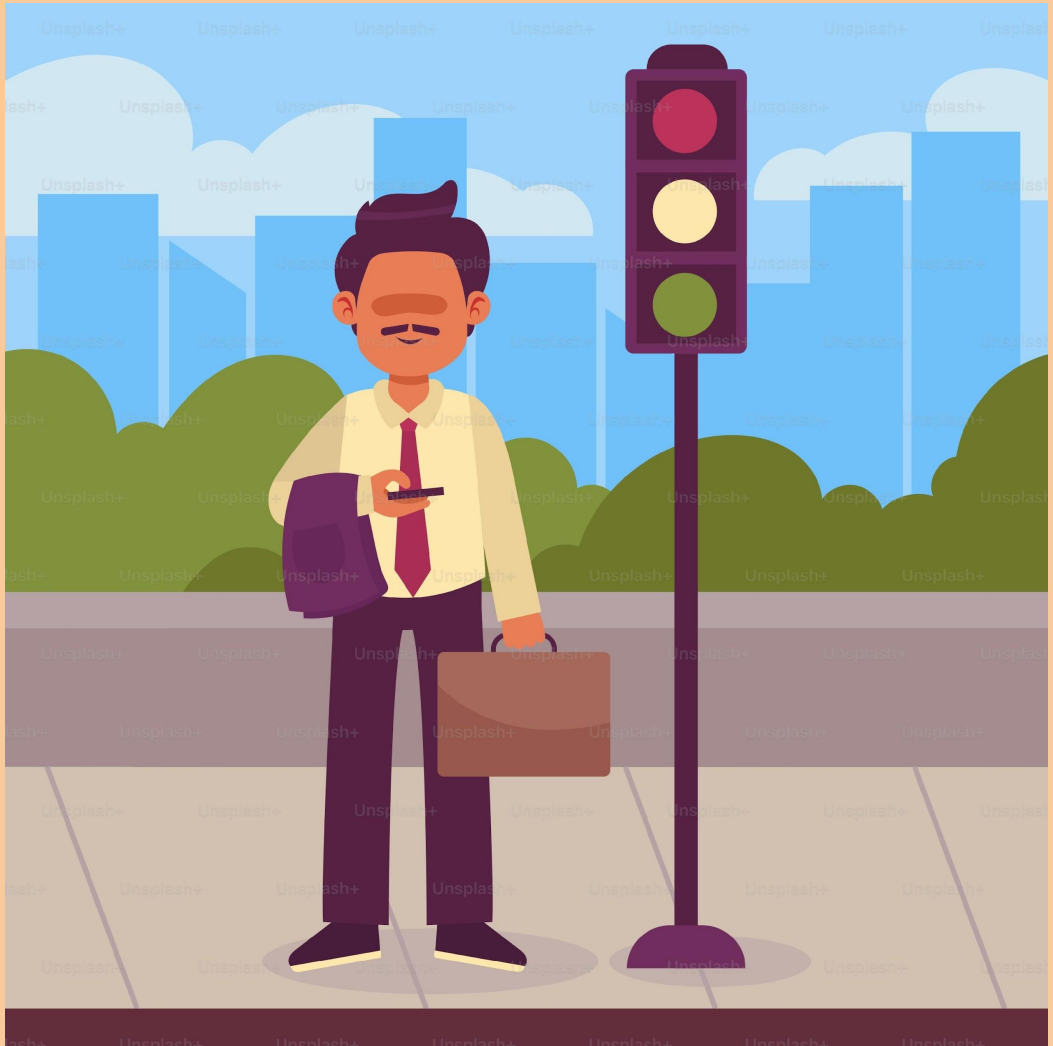
- Genetics. PMDD is highly heritable, indicating that there is a genetic link.
- Hormone sensitivity. As people with ADHD have reduced dopamine levels across the brain, hormone fluctuations may be more likely to reduce dopamine to critically low levels, leading to more severe feelings of exhaustion, moodiness, and lack of motivation.
- Sensory sensitivity. Autistic people generally have greater sensory sensitivity, and therefore may be more likely to be negatively affected by menses-related symptoms"
- Source: Holland, ADDitude Magazine, 2023



What’s really the most important thing to ask?



What is interoception- and how does it impact how we talk to patients?



Interoception in ADHD and Autism

They might not be making that connection themselves. Most neurodivergent people have poor interoception

- **Internal Signals**
  Our body sends signals from organs and tissues that inform us about internal states like fullness, hunger, thirst, heart rate, or the need to rest.

- **Body-Mind Connection**
  Interoception is the sense of internal body awareness; how we feel hunger, thirst, pain, temperature, and more. It plays a key role in how we understand and respond to our physical and emotional needs. Strong interoceptive skills support self-regulation, mental health, and social connection.

- **Why It Matters**
  It supports emotional regulation, self-awareness, and overall well-being. For example, noticing stress early can help prevent burnout, or noticing your blood sugar is dropping

- **When It's Disrupted**
  Difficulty sensing or interpreting internal cues can affect emotion regulation and is linked to mental and physical health challenges, according to the American Psychological Association.

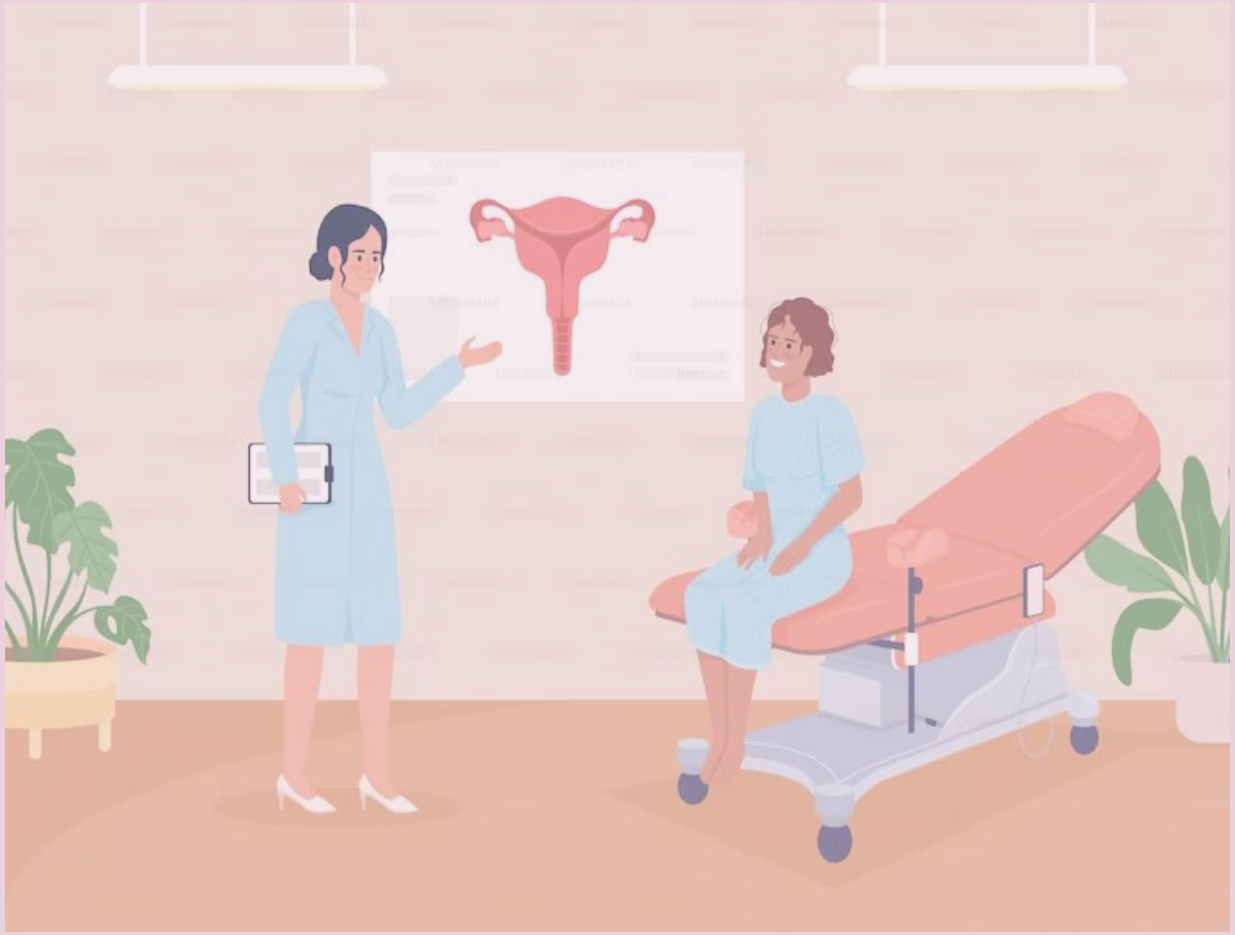
If a patient seems uncertain if there is any pattern to their symptoms- encourage them to start tracking.
Have them keep food diaries, document what time they went to bed and how much sleep they had. When they are symptomatic- have them document what time and what they have had to drink and eat 2 hours prior

Endometriosis

Definition: A chronic condition where tissue similar to the lining of the uterus (endometrium) grows outside the uterus, causing pain, inflammation, and scarring.

Prevalence: Affects approximately **1 in 10 individuals assigned female at birth (AFAB)** during reproductive years.

Cause: Exact cause is unknown but linked to retrograde menstruation, genetic factors, and immune dysfunction.



Source: World Health Organization, 2023

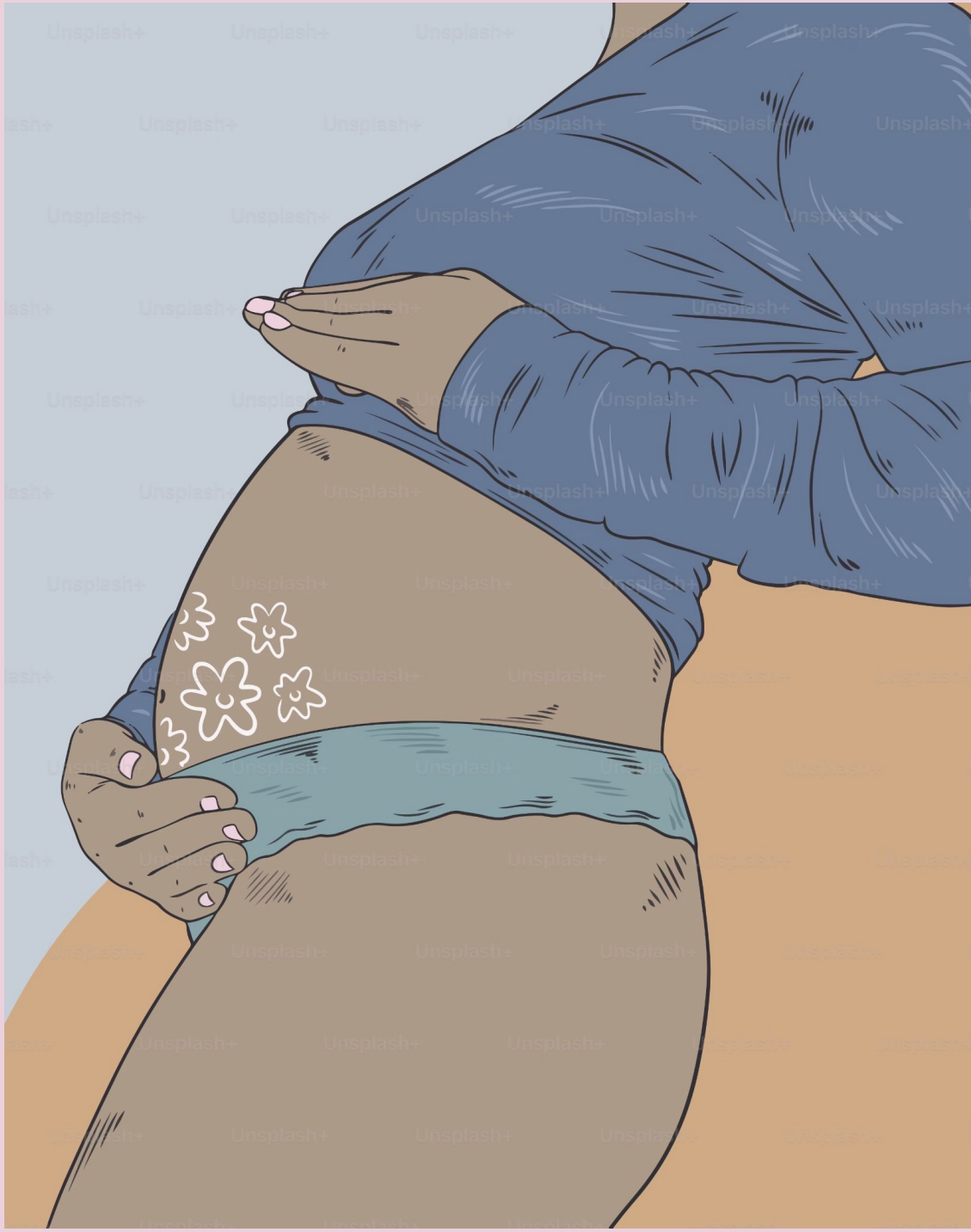
Endometriosis Clinical Presentation

Typical Symptoms:

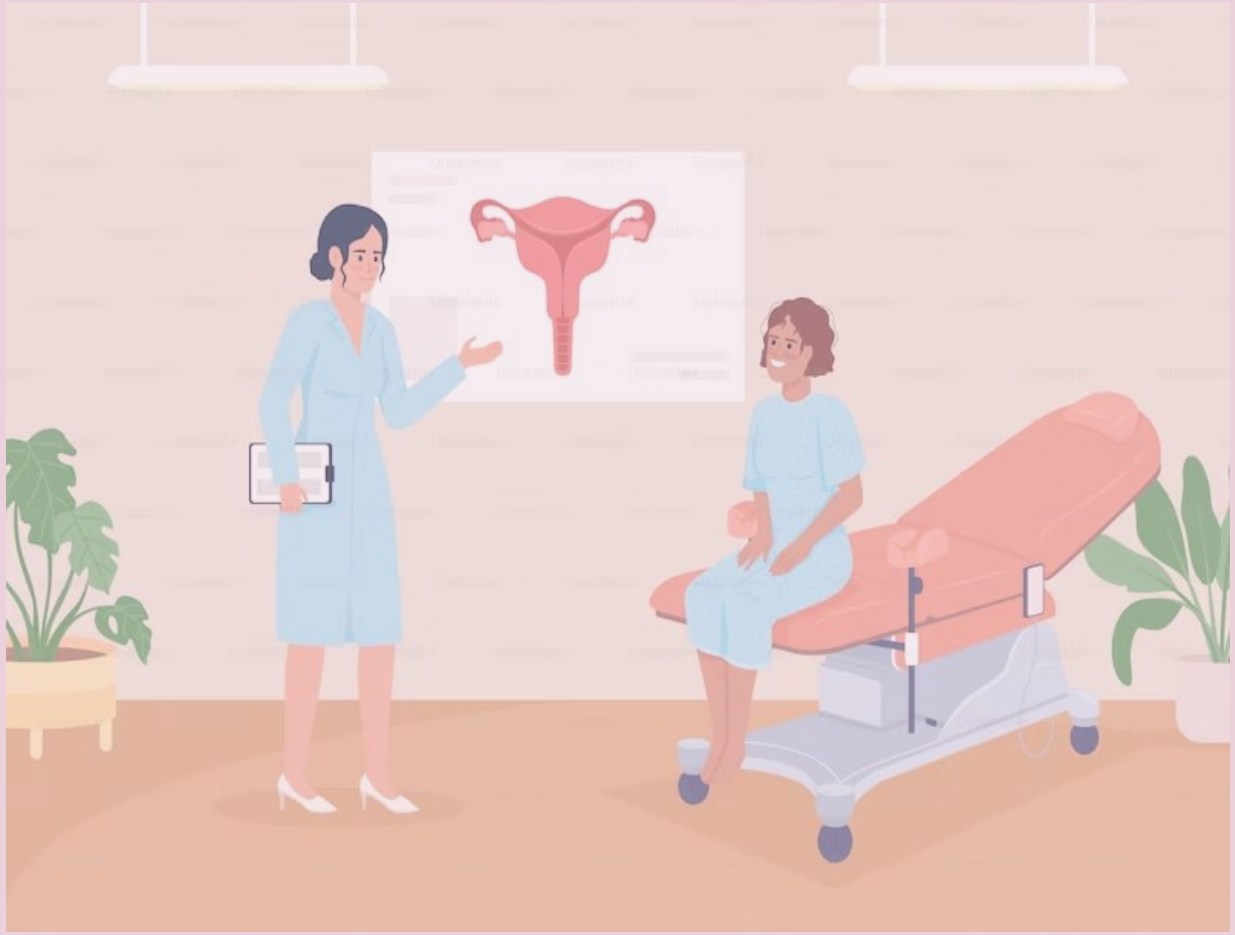
1. **Pelvic Pain**:
   - Chronic or cyclical, often worsening during menstruation.
2. **Painful Periods (Dysmenorrhea)**:
   - Severe cramping not relieved by standard painkillers.
3. **Pain with Intercourse (Dyspareunia)**.
4. **Infertility**:
   - Endometriosis is a leading cause of difficulty conceiving.
5. **Heavy Menstrual Bleeding (Menorrhagia)**.

Atypical Symptoms:

1. **Non-cyclical Pain**:
   - Constant pelvic or abdominal discomfort.
2. **Digestive Symptoms**:
   - Bloating, diarrhea, constipation, or nausea, often mimicking irritable bowel syndrome (IBS).
3. **Urinary Symptoms**:
   - Painful urination or blood in urine, especially during menstruation.
4. **Pain in Unusual Locations**:
   - Back, legs, or even chest if endometrial tissue is located in these regions.



What to ask your patient?



- Have you been missing work and/or school due to your menses from an early age?
- Is the pain still significant even with analgesics and heating pads?
- Are you experiencing syncope, nausea, vomiting from the pain?
- Do you experience significant GI symptoms during your menses?
- Do you experience pain with penetrative intercourse?
- Do you have a history of infertility?

How does it impact their mental health?

Emotional Impact of Chronic Pain:

- Persistent pain can lead to feelings of hopelessness, frustration, and isolation.

Mental Health Disorders:

- Increased prevalence of **anxiety and depression** due to the physical and emotional toll.

Impact on Quality of Life:

- Challenges in daily activities, work, and relationships can lead to diminished self-esteem and social withdrawal.

Infertility Stress:

- Difficulty conceiving can contribute to grief, stress, and emotional distress.

Some providers may notice they score high on the PHQ-9 and send them home with an SSRI or psych referral - however missing a diagnosis like endometriosis can be detrimental to patients suffering with this. Instead of an SSRI these patients may need birth control, imaging and/ or surgery

Hormonal Changes During Pregnancy and Mental Health

- **Overview**: Significant increases in estrogen and progesterone during pregnancy affect mental health.
- **Mental Health Impact**:
- For some, mood improves; others face heightened depression or anxiety.
- **Postpartum Depression**: Linked to the rapid hormonal drop post-birth.

- **Source**: *American College of Obstetricians and Gynecologists (ACOG).*

Pharmacokinetic and Pharmacodynamic Changes in Pregnancy

- 50% increase in plasma volume, increased body fat, increased volume of distribution

- Renal blood flow, glomerular filtration rate, and elimination of drugs can increase.

- Hormonal changes can affect liver enzyme activity.

Given that the concentration of medication in their blood may decrease both to increased blood volume and increased CYP2D6 activity, your patient may need a higher dose of SSRI as they near the third trimester

Pregnancy and ADHD

- **Hormonal Impact**: Higher estrogen may reduce ADHD symptoms, while progesterone can increase fatigue.
- **Treatment Adjustments**:

✔ **Discontinuing Stimulants**: Adderall or similar medications are often paused.

✔ **Behavioral Therapy and Structure**: Techniques become crucial in managing ADHD symptoms.

- **Source**: *Journal of Attention Disorders*.

Stimulants: Should we discontinue in pregnancy?

Not necessarily- and this goes for most psychiatric medications

More recent findings have not demonstrated a significant increase in risk of major malformations in children with exposure to methylphenidate or amphetamine, but it is possible there is a slight increased risk in cardiac malformations.

Pregnant people on stimulants during pregnancy should be carefully monitored for hypertension and potential for reduced weight gain due to appetite suppression.

Source: Huybrechts et al., JAMA Psychiatry, 2018

Pregnancy and Depression

- **Hormonal Impact**: Elevated estrogen supports serotonin; postpartum drop can trigger depression.

- **Treatment Adjustments**:
- **SSRIs** (e.g., sertraline) are considered safe for some during pregnancy.
- **Postpartum Therapy**: Key for managing depressive symptoms after birth.

- **Source**: *American Psychiatric Association*.

Pregnancy and Anxiety

Hormonal Impact:

Progesterone increase can calm or exacerbate anxiety.

Treatment Adjustments:

CBT and Relaxation Techniques: Effective non-medication approaches.

Low-dose SSRIs: Used in severe cases under close monitoring.

Source: *Harvard Health*.

Understanding Postpartum Depression (PPD)

Definition: A serious mental health condition that occurs after childbirth, characterized by persistent feelings of sadness, anxiety, and exhaustion that interfere with daily life.

Prevalence: Affects approximately **1 in 7 individuals** after giving birth.

How does it present?

Emotional Symptoms:

- Persistent sadness, hopelessness, or feeling “numb.”
- Severe anxiety or panic attacks.
- Irritability or anger.

Cognitive Symptoms:

- Difficulty concentrating or making decisions.
- Obsessive thoughts, often about the baby’s safety or guilt about being a “bad parent.”

Behavioral Symptoms:

- Withdrawing from loved ones.
- Loss of interest in activities.
- Changes in eating or sleeping habits (beyond typical newborn-related sleep deprivation).

Physical Symptoms:

- Fatigue or low energy.
- Somatic complaints like headaches or stomach aches.

What causes PPD?

Hormonal Shifts:

- Rapid decline in estrogen and progesterone after childbirth.

Sleep Deprivation:

- Exacerbates emotional and physical exhaustion.

Psychosocial Stress:

- Life changes, lack of support, or financial stress.

Breast feeding

- Dysphoric Milk Ejection Reflex- D-MER

https://pmc.ncbi.nlm.nih.gov/articles/PMC3126760/

Dysphoric Milk Ejection Reflex- D-MER

Dysphoric Milk Ejection Reflex (D-MER) is an abrupt emotional "drop" that occurs in some women just before milk release and continues for not more than a few minutes. The brief negative feelings range in severity from wistfulness to self-loathing, and appear to have a physiological cause. The authors suggest that an abrupt drop in dopamine may occur when milk release is triggered, resulting in a real or relative brief dopamine deficit for affected women.

This can be very discouraging for women who feel this is all they can contribute to their child and measure their worth on whether they can breastfeed

Source: Heise, International Breastfeeding Journal, 2011

Breast is best?


A HAPPY BABY NEEDS A HAPPY MOM.
KEEP MOM SAFE FIRST!

How does PPD impact mental health?

- Increased risk of developing chronic depression or anxiety if untreated.
- Strains relationships and bonding with the baby, potentially affecting early attachment.
- Can lead to intrusive thoughts or, in severe cases, postpartum psychosis.

How to screen for PPD: Risk Factors

Personal or Family History

Mental Health Conditions:

- Previous episodes of depression, anxiety, or bipolar disorder
- Family history of mental health disorders

Previous Postpartum Depression:

- Higher risk if PPD occurred in a prior pregnancy

Unintended Pregnancy:

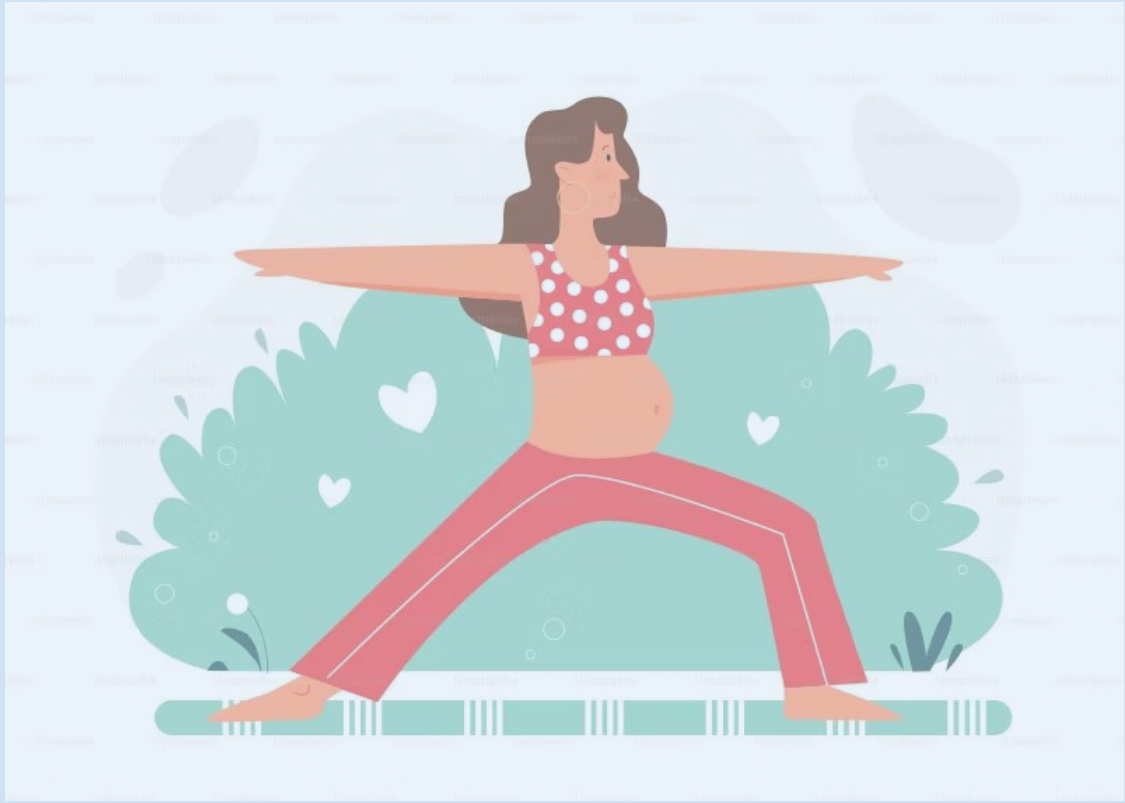
- Increased emotional distress due to unplanned or unsupported circumstances

Sleep Deprivation

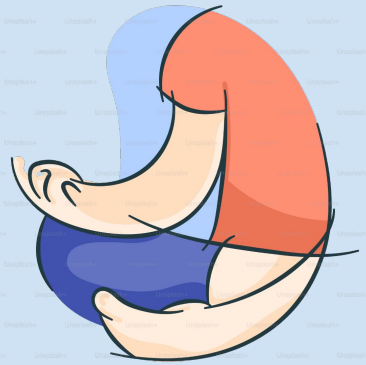
- Heightened risk due to poor sleep quality in the postpartum period

Trauma or Abuse History

- Emotional trauma can amplify stress and increase vulnerability to postpartum mood disorders



Neurodivergence and PPD



ADHD and Postpartum Depression

- *A large Swedish study looked at data from over 770,000 women. It found that those diagnosed with ADHD before pregnancy were **five times more likely** to experience postpartum depression compared to those without ADHD.*
  To be specific, 16.8% of women with ADHD developed PPD, compared to just 3.3% of women without it.

Autism and Postpartum Depression

- *Research from Drexel University used Medicaid data to examine perinatal outcomes in people with intellectual and developmental disabilities, including autism.*
  *They found that **autistic birthing individuals had a significantly higher risk** of postpartum depression than those without developmental disabilities.*

Source: Löfgren et al., Archives of Women's Mental Health, 2023

\Drexel University Policy and Analytics Center, 2024

Pregnancy and Autism

Hormonal Impact: Higher estrogen supports oxytocin, which aids in social engagement.

Treatment Adjustments:

Sensory Support: Increased reliance on occupational therapy for sensory regulation.

"Pregnancy may intensify sensory and emotional responses in autistic women."
– Dr. Sarah Bargiela, Autism Specialist.

Postpartum Hormonal Changes and Mental Health

Overview:

Postpartum estrogen and progesterone drops can lead to mood issues.

Treatment:

- **Supportive Counseling**: Essential for postpartum mood stabilization.
- **SSRIs and Hormone Therapy**: Used to manage postpartum depression.

Source: *National Institute of Mental Health (NIMH).*

Addressing Health Disparities

- **Addressing Health Disparities:**
  - Black women are **twice as likely** as white women to experience postpartum depression but less likely to receive treatment (Gress-Smith et al., 2012).
  - Hispanic women with disabilities report **higher rates of untreated anxiety and depression** than white counterparts due to access barriers (CDC, 2024).
- **Treatment Planning:**
  - Adapt interventions to mobility limitations and sensory needs.
  - Incorporate culturally responsive strategies such as, acknowledging community mistrust, offering bilingual resources.
- **Collaboration:**
  - Partner with OB/GYN, endocrinology, and community health workers to bridge hormonal and sociocultural needs.

CDC, 2024; Gress-Smith et al., 2012; Nosek, Hughes, & Robinson-Whelen, 2006 , Source: Manson & Kaunitz, NEJM, 2016

Hormonal Fluctuations and Mental Health Disorders

- **Impact on Neurotransmitters**:

- Estrogen affects serotonin; progesterone influences GABA.

  - *"Hormonal changes affect serotonin and GABA, key chemicals in the brain's mood regulation." – Dr. Pauline Maki, University of Illinois.*

- **Source**: *The Journal of Clinical Endocrinology & Metabolism.*

Perimenopause: Symptoms and Hormonal Impact

Overview:

Hormonal irregularity can increase mood swings, anxiety, and depressive symptoms.

"Perimenopause brings a surge in mental health issues, driven by hormonal inconsistency." – *Journal of Clinical Psychiatry*

Perimenopause

Definition: Perimenopause is the transitional phase before menopause when the body undergoes hormonal changes, primarily a decline in estrogen and progesterone.

Typically begins in the **40s**, but can start earlier (late 30s).

Lasts anywhere from a few months to **10 years**.

How can it present?

1. **Menstrual Changes**:
   - Irregular periods (shorter or longer cycles).
   - Heavier or lighter bleeding.
2. **Vasomotor Symptoms**:
   - Hot flashes and night sweats.
3. **Sleep Disturbances**:
   - Difficulty falling or staying asleep.
4. **Emotional Symptoms**:
   - Mood swings, irritability, and anxiety.
5. **Physical Changes**:
   - Weight gain, especially around the abdomen.
   - Changes in skin texture and hair thinning.

Atypical Symptoms:

1. **Cognitive Issues**:
   - Difficulty concentrating ("brain fog") and memory lapses.
2. **Unusual Pain**:
   - Joint pain or new onset migraines.
3. **Sexual Changes**:
   - Vaginal dryness and pain during intercourse.
   - Decreased libido.

How does it affect mental health?

- **Mood Disorders**:
  - Increased risk of **depression and anxiety** due to hormonal fluctuations.
  - Worsening of pre-existing mental health conditions like PMDD or bipolar disorder.
- **Cognitive Impact**:
  - Perceived memory and focus issues can cause frustration and stress.
- **Quality of Life**:
  - Sleep disturbances and physical symptoms often contribute to fatigue and irritability, affecting daily functioning.

Ability/Disability and Age in Women's Mental Health

- Disabilities (physical, sensory, or cognitive) can increase vulnerability to hormonal mood fluctuations due to limited mobility, chronic pain, or medication interactions.
- Reproductive health care gaps: Inaccessible facilities, bias in symptom interpretation, and limited provider training in disability-informed hormonal care (Nosek et al., 2006).
- **Example:** Perimenopausal women with mobility disabilities report greater difficulty accessing menopause-specific interventions, leading to untreated mood symptoms.
- Centers for Disease Control and Prevention, 2024; Wieczorek, 2023

Menopause: Low Hormone Levels and Mental Health Challenges

- **Overview**: Persistent low hormone levels are associated with increased depression and anxiety.

"Menopause is often accompanied by mood shifts as a result of decreased estrogen." – Dr. Jennifer Payne, Johns Hopkins.

What is menopause?

Definition: Menopause is the natural, permanent cessation of menstrual periods, marking the end of reproductive capability.

Timing/Diagnosis: Diagnosed after **12 consecutive months without a period**.

- Average age of onset: **51 years** (varies based on genetics, health, and lifestyle).
- Can occur earlier due to surgical interventions (e.g., hysterectomy) or medical treatments (e.g., chemotherapy).

Key symptoms

Physical Symptoms:

- Hot flashes and night sweats.
- Vaginal dryness and discomfort during intercourse.
- Sleep disturbances and fatigue.
- Joint pain and muscle stiffness.

Emotional and Cognitive Symptoms:

- Mood swings, irritability, and increased risk of depression or anxiety.
- "Brain fog" with difficulty concentrating and memory lapses.

Long-Term Health Impacts:

- Increased risk of osteoporosis and cardiovascular disease due to declining estrogen levels.

The stigma and misinformation surrounding HRT

Patients are often turned away if they request HRT for quality of life purposes

Why is HRT so stigmatized?

What Was the Women's Health Initiative (WHI) Trial?

- **Purpose**: A large-scale study launched in 1991 to investigate the effects of Hormone Replacement Therapy (HRT), diet modification, and calcium/vitamin D supplementation on **postmenopausal health**.
- **HRT Component**: Focused on the impact of **estrogen-only** therapy and **combined estrogen-progestin** therapy on chronic disease risks, particularly **heart disease**, **breast cancer**, and **osteoporosis**.

Key Findings of the HRT Study (Published 2002)

- **Risks Identified**:
  - Increased risk of **breast cancer** (with combined therapy).
  - Increased risk of **stroke and blood clots**.
  - No cardiovascular benefit as initially hypothesized.
- **Benefits Identified**:
  - Reduced risk of **osteoporosis-related fractures**.
  - Relief from menopausal symptoms like hot flashes and vaginal dryness.

Source: Rossouw et al., JAMA, 2002

Impact on HRT Usage

- **Media and Public Reaction**:
  - Sensationalized reports emphasized risks, particularly of breast cancer, while downplaying benefits.
  - Created widespread fear and confusion around HRT.

- **HRT Prescriptions Dropped**:
  - Use of HRT plummeted, leaving many individuals untreated for severe menopausal symptoms.

- **Missed Context**:
  - Risks were higher for older participants (average age: **63**), while younger menopausal individuals (50s) often face lower risks.

Modern Perspective

Reevaluation: Subsequent analyses show that HRT is **safe and beneficial** for many younger menopausal individuals when started early and tailored to individual needs.

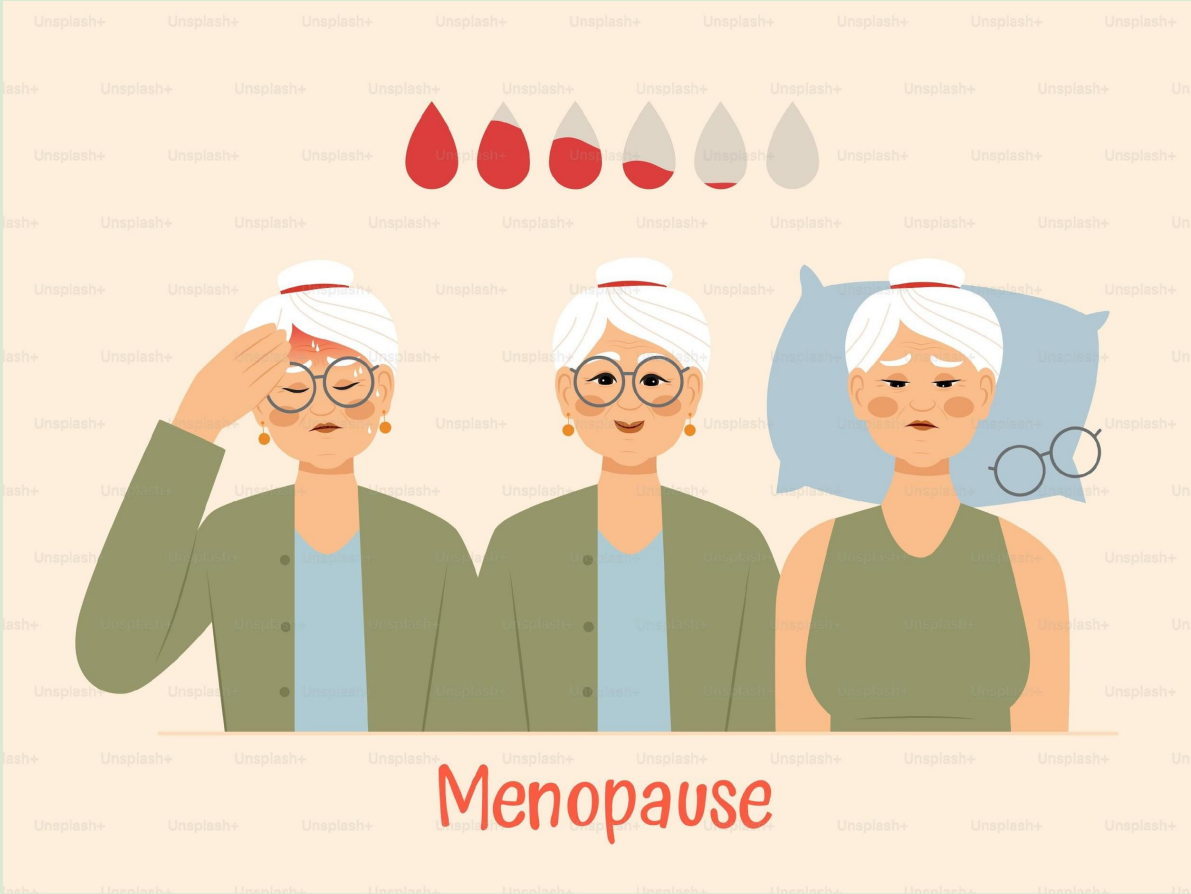
Key Takeaway:

- HRT is no longer a "one-size-fits-all" approach. Personalized care based on age, health status, and symptom severity is now the standard.

Dr. JoAnn E. Manson, a leading expert in women's health, emphasizes the benefits of hormone therapy for menopausal women:

"Hormone therapy can significantly improve quality of life and overall health for many women."

Source: Manson & Kaunitz, NEJM, 2016



Therapeutic Interventions for Menopause

- **Pharmacological and Non-Pharmacological Approaches**:
- SSRIs, SNRIs, HRT, CBT, lifestyle adjustments.

- **Source**: *Journal of Women's Health*.

Lifestyle Modifications for Mental Health Support

- **Diet, Exercise, and Sleep**: Emphasis on omega-3s,
- vitamin D, exercise, protein, and sleep hygiene.

- ***Source**: National Institute on Aging (NIA) recommendations.*

Therapeutic Techniques and Self-Care

CBT, Mindfulness, Meditation:

Effective for anxiety and mood regulation.

"CBT and mindfulness can mitigate menopausal anxiety."
– Dr. Susan Albers, Cleveland Clinic.

Hormone Testing; Not as simple as it sounds

Hormonal Fluctuations:

- Hormone levels (e.g., estrogen, progesterone, FSH, LH) naturally **fluctuate daily and throughout the menstrual cycle**.
- Results from a single test may not represent overall hormone levels.

Timing is Crucial:

- **Specific Days of the Menstrual Cycle**: Testing is most accurate when done during specific phases:
  - **Day 3**: For baseline FSH and LH levels.
  - **Mid-Luteal Phase (Day 21)**: For progesterone levels, reflecting ovulation.
- Mis-timed tests can lead to misdiagnosis or inaccurate conclusions.

Why Test Hormones?

Hormone testing is useful to assess reproductive health, diagnose or rule out conditions like:

- PCOS
- Premature ovarian failure
- Menopause (more so for those s/p hysterectomy as cessation of menses for 12 consecutive months is how it is diagnosed)
- Prolactinoma
- Other etiologies of amenorrhea
- Congenital Adrenal Hyperplasia
- Monitoring a patient's levels on HRT

Key Limitations of Hormone Testing: Setting expectations

Age and Life Stage:

- Hormone levels vary depending on age (puberty, perimenopause, menopause).
- Testing in perimenopause is especially challenging due to erratic hormone shifts.

External Factors Affecting Results:

- Stress, medications (e.g., birth control), and lifestyle factors can skew results.

Limited Diagnostic Value:

- Take the time to explain to your patients that hormone tests alone cannot diagnose conditions like PMDD, perimenopause or menopause; they require symptom-based evaluation.

Case Studies in Practice

Case Study 1: Perimenopausal Mood Swings and Anxiety

- **Patient Profile**: 48 years old, presenting with mood swings and increased anxiety.
- **Treatment**: HRT, CBT, structured exercise, and improved sleep hygiene.
- **Outcome**: Reduced mood swings and anxiety, better sleep quality, and higher energy levels.

Case Study 2: Depression in a Menopausal Woman

- **Patient Profile**: 53 years old, presenting with depression and hot flashes.
- **Treatment**: SNRI (Venlafaxine), dietary adjustments

All case examples are de-identified, with details altered to protect confidentiality in accordance with HIPAA guidelines.

Questions?

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OR

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