NATIONAL CURRICULUM IN REPRODUCTIVE PSYCHIATRY

Premenstrual Dysphoric Disorder

Progressive Case Conference
Premenstrual Exacerbation
Facilitator's Guide

Contributor
Lauren M. Osborne, MD

Pre-assessment learning:
Before you attend the classroom didactics on this module, please review some concepts of premenstrual disorders in the following articles:

Lanza di Scalea, T., & Pearlstein, T. (2017). Premenstrual dysphoric disorder. *Psychiatric Clinics of North America*, 40(2), 201-206.

Yonkers, K. A., & Simoni, M.K. (2018). Premenstrual disorders. *American Journal of Obstetrics and Gynecology*, 201(1), 68-74.

Hantsoo, L., & Epperson, C.N. (2015). Premenstrual dysphoric disorder: Epidemiology and treatment. *Current Psychiatry Reports,* 17:87.

Supplemental readings

Ismaili, E., Walsh, S., O'Brien, P.M.S. *et al.* Fourth consensus of the International Society for Premenstrual Disorders (ISPMD): auditable standards for diagnosis and management of premenstrual disorder. *Arch Womens Ment Health* **19**, 953–958 (2016). https://doi.org/10.1007/s00737-016-0631-7

Pooja Thakrar, Kalyani Bhukar, Rajat Oswal, Premenstrual dysphoric disorder: Prevalence, quality of life and disability due to illness among medical and paramedical students,Journal of Affective Disorders Reports, Volume 4, 2021, 100112, ISSN 2666-9153, https://doi.org/10.1016/j.jadr.2021.100112.

Gao M, Zhang H, Gao Z, Cheng X, Sun Y, Qiao M, Gao D. Global and regional prevalence and burden for premenstrual syndrome and premenstrual dysphoric disorder: A study protocol for systematic review and meta-analysis. Medicine (Baltimore). 2022 Jan 7;101(1):e28528. doi: 10.1097/MD.0000000000028528. PMID: 35029919; PMCID: PMC8735714.

https://iapmd.org/blog-posts/2017/4/10/best-period-tracker-apps

Please also review the PMDD Self-Study Module.

Overview

Premenstrual mood symptoms are common and can be debilitating for some women. The exact etiology is unknown, but research increasingly implicates individual women's vulnerability to normal hormonal fluctuations as well as serotonin deficits. It is important to distinguish among the various premenstrual disorders, as treatment will differ.

Session
• Pre-assessment learning (prior to classroom)
• Group activity: Case conference including video and case discussion

Learning objectives
At the completion of this session, participants will be able to:

1. Describe the prevalence and symptoms of premenstrual disorders, including premenstrual syndrome, premenstrual dysphoric disorder, and premenstrual exacerbation of another mood disorder
2. Understand the difference in symptomatology among the premenstrual disorders and how to chart symptoms
3. List risk factors for premenstrual disorders
4. Understand possible etiologies for the development of premenstrual disorders
5. Understand DSM-V diagnostic criteria for PMDD and differential diagnosis of PMDD
6. Understand treatment options for PMDD and premenstrual exacerbation of mood disorders

Case Presentation

FC, a 26-year-old G0P0 Caucasian single woman who works as an event planner, presents to a physician with a chief complaint of "there's something wrong with my hormones." She reports no prior formal psychiatric history, no acute gynecologic issues or sexually transmitted infections, and no medical problems beyond obesity (BMI 31) and mild intermittent asthma that she controls with an albuterol inhaler. She underwent menarche at age 12, the same age as her mother and older sisters, one of whom has fibroids and menorrhagia. Her periods were irregular and scant for the first two years, but by age 14 she was experiencing heavy and prolonged bleeding, accompanied by severe pain and mood changes. Her mother took her to the pediatrician, who recommended oral contraceptives, which Felicity used for the next 12 years; her pain and mood symptoms improved with the oral contraceptive and have not been interfering with her life.

Recently, however, FC's middle sister was diagnosed with Factor V Leiden, and FC's gynecologist mentioned that the blood clotting disorders were relative contraindications for hormonal contraception. Felicity stopped her oral contraceptive, and within two months she was again experiencing heavy bleeding and severe cramping during her menses, along with mood changes, bloating, and breast tenderness in the two weeks prior to menses. She wants to know what she can do about these symptoms.

Discussion Questions

1. What is the differential diagnosis for Felicity's symptoms at this point?
Elicit the following:
    • PMS

• PMDD
• PM exacerbation of another disorder
• Gynecologic condition such as fibroids
• We don't have enough information about her symptoms right now to be able to distinguish among the three premenstrual syndromes, nor to rule out conditions such as fibroids that may explain her heavy bleeding.

2. What risk factors for premenstrual disorders are already mentioned in the case presentation? What additional risk factors are there that may or may not be present for this patient?

Elicit the following:

Already mentioned:
• White
• Obese

Still unknown:
• Cigarette smoking
• History of early trauma/sexual abuse
• Family history

The facilitator explains to the group that case presentation will now continue with doctor-patient videos.

Present Video #1

Doctor: It sounds as though you've really been suffering in the last few months. I'd like to understand a bit more about your symptoms. Tell me first about your physical symptoms.

Patient: Well, they're really bad. In the week before I get my period, I guess starting around 5 or 6 days before, I get this awful bloating – I can easily gain 5 lbs, and it's all in my belly, I can't button some of my pants. And breast tenderness like you wouldn't believe – if I accidentally bump into something, I just about want to jump out of my skin. Then when my period starts, the cramps are awful, and I bleed so much!

Doctor: Tell me more about the cramps – what helps them? And are they so bad that you can't go about your usual activities?

Patient: A heatpad really helps a lot, and I'll take a whole bunch of ibuprofen, that usually helps if I take at least 3 pills. I try really hard to keep up with my usual activities, but sometimes I just can't. I end up calling out of work at least one day a month, and last month I couldn't even make it to my best friend's birthday party, the pain was just too strong.

Doctor: And what about the bleeding? How many pads do you soak through in a day?

Patient: It seems really bad to me, but my sister says that's just because I was used to have lighter periods when I was on the pill – it's nowhere near as bad as my sister's, the one who has fibroids. I probably use 3 or 4 pads in a day.

Doctor: You mentioned something about mood changes, too. What did you mean by that?

Patient: I just feel so much more sensitive. I cry more easily in the week before my period, I worry more about whether people like me. And sometimes I just get so pissed off when people do stupid things – much more of a hair trigger than usual.

Doctor: Do you miss work because of these mood changes? Or get into fights with people, or into trouble at work?

Patient: Oh no, nothing like that! I mean, I notice a change, but I'm not sure anyone else does – I try really hard to make up for it. I've never missed work or gotten into a fight, no, nothing like that.

Doctor: What happens when your period starts? Do these symptoms go away?

Patient: That's the amazing thing – for the most part, they do! I still have the cramps, but all the other stuff just fades away by about day 2.

Facilitator pauses for discussion

3. What diagnosis is most likely with this additional information? How is the diagnosis defined?

Elicit the following:

- Premenstrual syndrome
- Women who have predominantly physical symptoms, or whose distress is below the threshold required for PMDD, have PMS. The International Society for Premenstrual Disorders(ISPMD) and the Royal College of Obstetricians and Gynecologists define PMS as
    1) Physical and or emotional symptoms
    2) Symptoms are present during luteal phase and abate as menstruation begins
    3) A symptom-free week
    4) Symptoms are associated with significant impairment during luteal phase

Here's a table from ISPMD showing the core features of premenstrual disorder and other variations:

PMD Category	Symptom characteristics
Core PMD**	Symptoms occur ovulatory cycles
	The symptoms are not specified—they may be somatic and/or physical
	The number of symptoms is not specified
	Symptoms are absent after menstruation and before ovulation
	They must recur in the luteal phase
	They must be prospectively rated (two cycles minimum)
	Symptoms must cause significant impairment[a]
Variants of PMD	
Premenstrual exacerbation	Symptoms of an underlying psychological or somatic disorder significantly worsen premenstrually
PMD due to non-ovulatory activity	Symptoms result (rarely) from ovarian activity other than that of ovulation
Progestogen-induced PMD	Symptoms result from exogenous progesterone administration
PMD with absent menstruation	Symptoms arise from continues ovarian activity even though menstruation has been suppressed

4. What is the prevalence of this diagnosis?

Elicit the following:

- PMS occurs in 20-30% of women (Yonkers & Simoni, 2018), as far as we can tell – but the research is far from definitive. Remember, to have PMS women must have functional impairment from their symptoms. Lots of women have mild premenstrual symptoms such as bloating or breast tenderness, but they can only be called PMS if there is functional impairment.

Facilitator indicates that case will continue with another video – not a continuation of the previous one but an alternative.

Present Video #2

Doctor: It sounds as though you've really been suffering in the last few months. I'd like to understand a bit more about your symptoms. Tell me first about your physical symptoms.

Patient: Well, they're pretty bad. In the week before I get my period, I guess starting around 5 or 6 days before, I get this awful bloating – I can easily gain 5 lbs, and it's all in my belly, I can't button some of my pants. And breast tenderness like you wouldn't believe – if I accidentally bump into something, I just about want to jump out of my skin. Then when my period starts, the cramps are awful.

Doctor: Tell me more about the cramps – what helps them? And are they so bad that you can't go about your usual activities?

Patient: A heatpad really helps a lot, and I'll take a whole bunch of ibuprofen, that usually helps if I take at least 3 pills. Once in a while I'll curl up and stay home, but usually I try really hard just to go about my usual day, even if I'm feeling pretty miserable.

Doctor: You mentioned something about mood changes, too. What did you mean by that?

Patient. Now that's the part that really bugs me. I almost feel like I'm a completely different person in the week before my period! I cry at the drop of a hat, I feel so low and like I'm not worth anything. At the same time I feel keyed up, and I can't concentrate, can't sleep. I eat so much junk food, and I feel like things are just spinning out of control. And then I really lash out at other people – I got in a huge fight with my boyfriend last month, and the month before I was so argumentative with my boss! Fortunately she knows me really well and she knew this wasn't like me, so she just told me to take a walk to cool down – thank God, because if I'd kept going I might have been fired!

Doctor: Sometimes when people feel that low, they can even think that life isn't worth living, or think about wanting to harm themselves. Does that ever happen to you?

Patient: (after pause): I don't even like to talk about it. But last month it got so bad, I felt like I just couldn't stand myself. I thought about all those bottles of ibuprofen – I had a coupon so I bought 2 for 1 – and I thought pretty seriously about taking it all.

Doctor: That sounds really scary. How close did you come to actually taking those pills?

Patient: (after pause) The first time it happened, I just thought about it, and I was so horrified, I went out for a walk so I wouldn't be in the apartment with those pills. But the next day, when I got home from work, it was all I could think about. I even went into the bathroom and got the pill bottles out and carried them around the house, but I didn't open them. It really scared me.

Doctor: I'm really glad you came in, that sounds frightening. I think I have a good idea now of how bad your symptoms get just before your period, but I have a few more questions. What happens when you get your period?

Patient: The first day it's not really any different, but by the second day I'm feeling like myself again – it's like a light switch goes off. And then I'm completely fine until wham, 3 weeks later, I get smacked again.

Facilitator pauses for discussion.

5. What diagnosis do you most strongly suspect now, and what are the criteria for that diagnosis?

Elicit the following:

- PMDD

DSMV-TR Criteria

A. In the majority of menstrual cycles, at least five symptoms must be present in the final week before the onset of menses, start to improve within a few days after the onset of menses, and become minimal or absent in the week postmenses.

B. One (or more) of the following 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.

C. One (or more) of the following symptoms must additionally be present, to reach a total of five symptoms when combined with symptoms from Criterion B above.
1. Decreased interest in usual activities (e.g., work, school, friends, hobbies).
2. Subjective difficulty in concentration.
3. Lethargy, easy fatigability, or marked lack of energy.
4. Marked change in appetite; overeating; or specific food cravings.
5. Hypersomnia or insomnia.
6. A sense of being overwhelmed or out of control.
7. Physical symptoms such as breast tenderness or swelling, joint or muscle pain, a sensation of "bloating," or weight gain.

Note: The symptoms in Criteria A–C must have been met for most menstrual cycles that occurred in the preceding year.

D. The symptoms cause clinically significant distress or interference with work,

school, usual social activities, or relationships with others (e.g., avoidance of social activities; decreased productivity and efficiency at work, school, or home).

E. The disturbance is not merely an exacerbation of the symptoms of another disorder, such as major depressive disorder, panic disorder, persistent depressive disorder, or a personality disorder (although it may co-occur with any of these disorders).

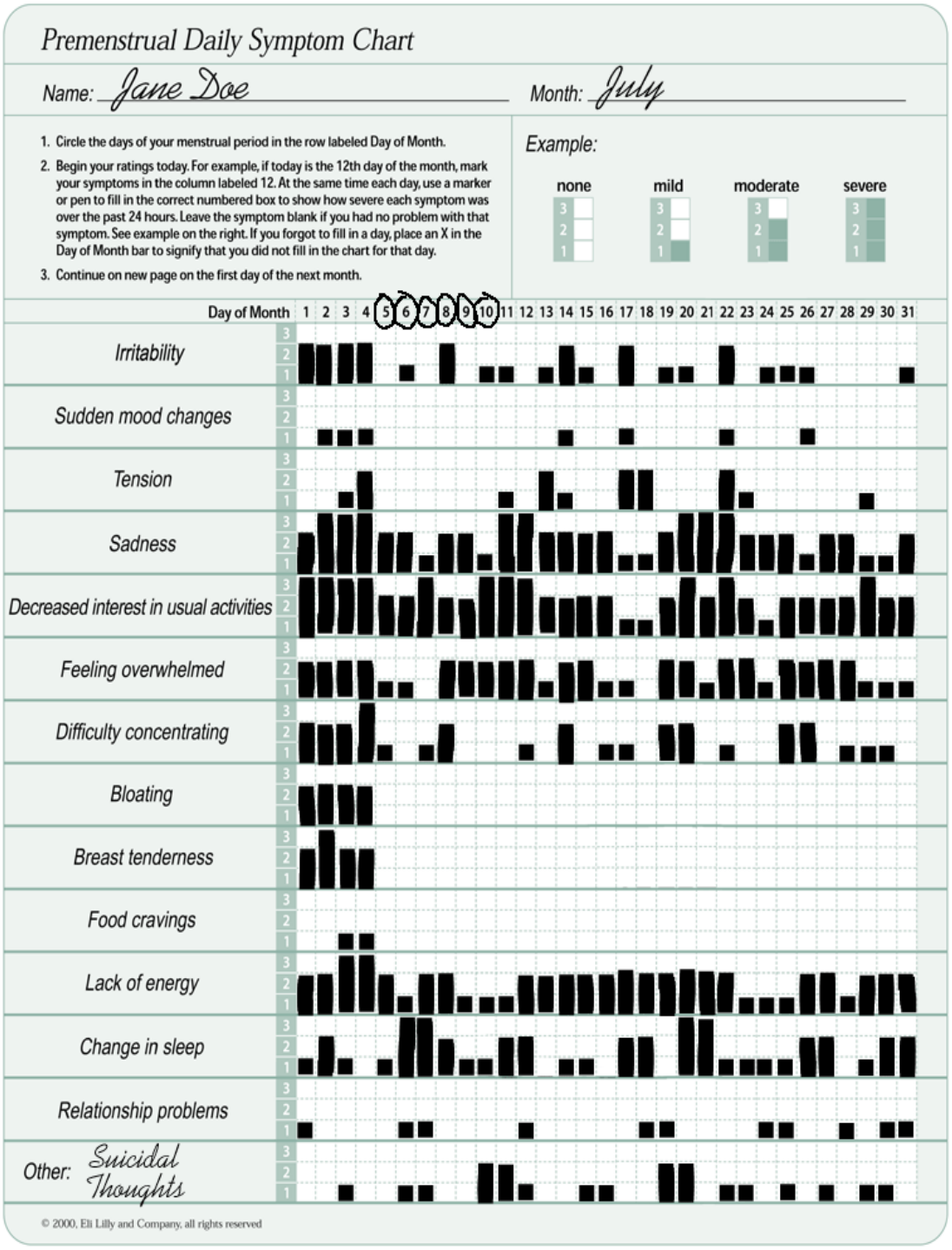
F. Criterion A should be confirmed by prospective daily ratings during at least two symptomatic cycles. (Note: The diagnosis may be made provisionally prior to this confirmation.)

G. The symptoms are not attributable to the physiological effects of a substance (e.g., a drug of abuse, a medication, other treatment) or another medical condition (e.g., hyperthyroidism).

6. How common is this diagnosis?
Elicit the following:
- 1.2-6.4% (Yonkers & Simoni, 2018)

7. What causes it?
Elicit the following:
- Research does NOT support different levels of hormones in women with PMDD, but instead supports different women's differing vulnerability to normal hormonal fluctuations
- There is some evidence that women with PMDD have a paradoxical response to allopregnanolone, the metabolite of progesterone that ordinarily has anxiolytic effects but may provoke the opposite in women with PMDD. It also may be that women with PMDD may have decreased allopregnenolone in the luteal phase, actually contributing to PMDD symptoms
- There is also evidence for a malfunctioning of the serotonin transporter
- There may also be a difference in brain circuitry, with differences in the frontal cortex that make it more difficult for women with PMS or PMDD to exert top-down control on emotions

8. What do you need to do now to confirm this diagnosis?
Elicit the following:
- Obtain 2 months' worth of prospective mood ratings, using a tool such as Daily Record of Severity of Symptoms or a mood tracker app such as Flo, Me V PMDD, Period Tracker Lite.



Facilitator indicates that case presentation will continue in a third video. This time, the video is a continuation of #2, not an alternative.

Present Video #3

Doctor: Thanks for coming back to see me. I'm glad you were able to keep track of your mood – tracking mood prospectively is the best way to diagnose PMDD. Let's have a look at your mood tracker.

Doctor: Let's review this. Remember that day 1 is the first day of your menses, and I can see that you have a regular 28-day cycle Do you see a pattern here? Is it what you expected?

Patient: (after pause) Well, yes. I can see that things are worse in the week before my period.

Doctor: That's right, things ARE a lot worse in the week before your period, and that's what I expected from talking to you last time. But I'm really interested in some of these other symptoms you reported. Do you see how you have symptoms through your cycle? What do you make of that?

Patient: Huh. I guess I wasn't even aware of that – it feels so terrible in that week before my period that I guess I didn't notice these other days – but you're right, they're scattered all over the place. What does that mean?

Doctor: It's very common for women to have some kinds of symptoms before their periods. But to qualify for PMDD, the symptoms really have to be absent in the rest of the month. That doesn't seem to be the case with you, so I think you actually have what I like to call "PME," or premenstrual exacerbation of an underlying mood disorder. There's no "official" diagnosis with these initials, mind you – but what it means is that I think you have a mood disorder that is there all the time, and it gets a whole lot worse in the premenstrual period.

Patient: OK, but does it really matter whether we call it PMDD or something different?

Doctor: Actually, it might – we have different approaches to treatment for PMDD and for other mood disorders, such as major depressive disorder. Have you ever had a time in the past when you were feeling low all the time, for at least 2 weeks?

Patient: You know, I did have something like that when I was in college, spring of my sophomore year. I just couldn't get out of bed, and I did really terribly in school. I thought it was just stress.

Doctor: It's often hard to say, looking back that far – but that might be an indication that you are prone to depression more generally.

Patient: OK, so is there something I can take to feel better?

Facilitator pauses for discussion.

9. How do we treat PMDD?
Elicit the following:

• Nonpharmacological approaches can be helpful. These include exercise, diet (a complex carbohydrate diet in the luteal phase was helpful in one randomized trial), and psychotherapy, particularly CBT.
• SSRIs are first-line treatment, and there is strong evidence of their efficacy
• Can be dosed continuously, or with luteal phase or symptom onset dosing. Some evidence indicates that continuous dosing may be slightly more effective, but there isn't much evidence about that yet.
• Combined oral contraceptives are commonly used, but evidence is actually sparse – and they have a number of downsides (higher risk than SSRIs of blood clots, stroke, etc.). The best evidence concerns those that use the novel progestin drosperinone, so for women who desire contraception and have no contraindications, this may be a reasonable alternative to an SSRI.
• Data for other hormonal treatments, i.e., estrogen and progesterone, is inadequate.
• For severe cases, GnRH agonists can be used to stop ovulation, but this is very much a third-line treatment.
• Hysterectomy and oophorectomy could also be used for refractory cases, but these invasive procedures should be recommended with caution, and only after first trying GnRH agonists to see if the hypoestrogenic state is a) tolerable and b) helpful
• Complementary medicines are frequently used, but evidence and effect sizes at this point are low; chasteberry is increasingly studied and may accumulate sufficient evidence in time. There is some evidence for vitamin B6 (100 mg) and calcium (1000 mg).

10. Does it make sense to use SSRIs in luteal phase dosing? Don't they take 6-8 weeks to work?

Elicit the following:

• Not in PMDD! They work right away. Clearly the mechanism is different, but we are not quite sure why. They may act on allopregnanolone.

11. How does treatment differ if the patient is found to have premenstrual exacerbation of an underlying disorder?

Elicit the following:

• Treatment for the underlying mood disorder should be maximized before beginning any specific premenstrual treatment; for many, the premenstrual exacerbation will disappear when the mood disorder is treated. If it does not, extra SSRI can be added in the luteal phase.