# Side Effects of the Second X: The Rare Mood Disorder of Premenstrual Dysphoria

Samantha Swank

---

*Writer's Comment: Women like me often avoid any mention of periods when we want our moods to be taken seriously, lest our cyclic, rapid oscillations between normalcy and panicked hopelessness be dismissed as standard feminine moodiness. The concept of a menses-related condition was, to me, unacceptable: for my periods to both drive and define my depression meant to be invalidated through menopause. But whereas denial foments shame and stagnation, honesty precedes love, forgiveness, and change. This essay has been many things for me: a self-reflection, an explanation, an intellectual and scientific endeavor, a door for others that I don't usually open. Rarely have I disclosed the sheer depth of my psychiatric conditions, but I've learned that secrecy and shame only perpetuate an already devastating cycle, and to heal means to extend compassion to myself, to other sufferers, and to the perplexed witnesses of our illness with the knowledge I now have. I would like to thank the people in my life who have tolerated—and at times even loved—me, especially my partner, Seth Evans; to thank my brother, Zachary, who gave me a reason to live when I no longer had any other; and to thank my writing professor, Carl Whithaus, who provided the freedom and security to invest my time into such a vulnerable piece.*

*Instructor's Comment: Sam wrote "Side Effects of the Second X: The Rare Mood Disorder of Premenstrual Dysphoria" in my UWP 101 Advanced Composition course during Summer 2020. The course was taught remotely, but throughout the class, Sam's wit and ability as a writer shone through. Sam was willing to tackle difficult, painful*

*topics, but in ways that made them approachable for readers. In this well-researched, yet intensely personal piece, Sam's tone undercuts the heaviness, the weight, of the too serious threats and anxieties that seem to be building around this disorder. Sam's writing reminds me of Oliver Sacks' work, particularly his writing about his own migraines Sam documents the effects of Premenstrual Dysphoria (PMDD) but also reveals the anxieties and the human side of it. Sam also critiques psychiatry—particularly its certainties and its limitations in terms of listening to women's experiences. I can see Sam pursuing many different types of work, and I suspect writing—slightly irreverent and with a necessary spark of critique—will remain vital in whatever Sam does.*

*—Carl Whithaus, University Writing Program*

***NOTE**: When I say "woman," I'm using it as a broad term to refer to anyone with the female biology that PMDD requires, which includes those who are intersex as well as those who are not cisgender. I can only speak on PMDD from a cisgender female point of view; hopefully someone will be able to write of this topic from other perspectives and circumstances.*

The tide will swallow us with its angry tongue, rapidly ascending from the pull of two silver spheres deep within us—moons that provide the foundation for life. Our lungs will gurgle and froth with inexplicable pain, each breath singing with the forceful collisions of lead bells in our ribcage. Currents will tear us from the shore into tangles of kelp and whirlpools of desperation, and we'll scream for help with futility. We'll grasp for a hand reaching out from a boulder, but will be thrashed instead by the tumbling waves until we're too weak to fight them, and we sink.

Silence. Crimson will slowly leach into the water, and we will be temporarily freed. Ocean pulses will gently rock us back to the shore, where the sand will graze our feet with its silky grains as we search for our loved ones, attempted saviors, the hand from the rocks. But by the time the beach crunches softly beneath our feet like powdery snow, everybody will be gone. So we'll sit back down, alone, and wait for the tide to swallow us again.

This is the sinister cycle of premenstrual dysphoria. A monthly depression or anxiety, or both, driven solely by hormonal shifts during the menstrual cycle. It consumes us in despair and dread on par with that of major depression and other severe psychiatric illnesses, to the extent that some of us will wonder, *are we bipolar?*, from the cyclic nature and intensity, *or are we borderline?*, from our erratic social behaviors. Many of us will wait years to be diagnosed, only after being dismissed by friends, family, and health professionals as hormonal, as sensitive.

But yes, we are hormonal and emotional: so severely that we can't live. Even though most others will be rational, hopeful, and only moderately bothered during the luteal phase of their cycles, between 6 percent (Pilver) and 15 percent (Spratt) of women with this disorder will attempt suicide. Nearly 19 percent of those with the condition report suicidal ideation. Even among women without the disorder, those with moderate premenstrual symptoms are also at a higher risk of suicidal ideation (but not of suicide or suicide attempts); their risk, though, is still lower than those with full blown premenstrual dysphoric disorder (Pilver). And regardless of whether a woman has this particular diagnosis, other mental illnesses predispose her to a higher risk of suicidal behavior during the premenstrual and early menstrual phase of her cycle, and many suffer from premenstrual exacerbation of a pre-existing mental disorder (Owens).

I know now that my own episodes of vague, inexplicable suicidal ideation, which I didn't have a name for at the time, were directly related to my menstrual cycles. I remember wondering if I was a type II bipolar with hypomania because I felt so good for a week only to plunge into a tangle of anxious despair again for another three; I wondered if the disorder perhaps skipped a generation or a sex on my father's side and leapt to me from my grandmother. I remember being a tightly wound wreck for two weeks, being too exhausted to even loathe myself for another, and having a week of respite to rebuild before it all repeated. But bipolar didn't fit, so I obsessively scoured the NIMH and Mayo Clinic and WebMD websites for symptoms of *anything* that truly captured what I had. A personality disorder? Dysthymia? Was it really only anxiety? Was it a panic disorder? Was I just overreacting?

* * *

The Holy Gospel of psychiatry is known as the DSM, or the *Diagnostic and Statistical Manual of Mental Disorders*, with the most

recent version being the Fifth Edition (DSM-V). Though premenstrual dysphoric disorder had been loosely acknowledged in the Fourth Edition (DSM-IV) more than a decade earlier—named but not deemed an 'official' diagnosis—the DSM-V made it formal (Ro) and provided physicians and patients with something tangible and accepted that they could directly treat, rather than continue to circumvent the real diagnosis by treating any number of mood disorders that only partially fit the bill.

Also known as PMDD, premenstrual dysphoric disorder is a condition in which premenstrual hormonal changes inexplicably cause severe physical and emotional symptoms, including migraines, depression, anxiety, and suicidal ideation (Ro) in approximately 2–5 percent of women of reproductive age (Dubey). During the luteal, or premenstrual, phase of the menstrual cycle, blood levels of sex steroids shift, with progesterone sharply increasing and estrogen decreasing (Gorvett). For most women, this only causes minor physical and emotional symptoms, the emotional symptoms themselves perhaps driven by the physical—pain and fatigue are notoriously unbeneficial to mood regulation, regardless of sex. But for some, it manifests as something more insidious that interferes extraordinarily with daily life, whether it's work, school, relationships, or all of the above. In my case, I pushed my most beloved away from me numerous times and almost obliterated a rare and beautiful love that I'm infinitely appreciative to experience. My friends learned early to leave me alone for weeks at a time until I emerged from myself and we resumed as normal until the next episode. Family members gave me my space and privacy—not something you hear from most teenagers—and only gently encouraged me to graze the borders of my comfort zone lest I panic and sob for days. Everyone knew me as moody but nice on a good day, as excessively sensitive and prone to being a 'Debbie Downer.' I had no idea what was wrong with me. Others just thought I was overly emotional.

Despite symptoms that are common between mental health conditions, such as low mood or appetite and sleep changes, PMDD is distinguished by its uniquely *predictable*, *cyclic* nature. Episodes only occur during the luteal phase, which is the time frame of roughly one to two weeks after ovulation but before menstrual bleeding. Comorbidity is common with PMDD, which can murky the diagnosis: strikingly high rates of depressive and anxiety disorders coincide with premenstrual dysphoric disorder, with 40 percent of us having at least one type of depression and 70 percent of us experiencing at least one type of anxiety disorder (Pilver). I can attest to experiencing all three.

But though it may appear at first with such statistics that the symptoms of PMDD are really more than likely an exacerbation of an underlying or undiagnosed condition, there's a catch: this disorder fails to manifest even during other major hormonal changes, including pregnancy and menopause, and also fails to appear at any other time of the menstrual cycle, or during menstrual cycles that lack ovulation, *regardless of comorbidity* (you can't exacerbate something that isn't there). Women who are otherwise mentally and emotionally healthy can still suffer from PMDD, which heavily suggests that "the menstrual cycle is required for the development of PMDD symptoms" (Yen, et al.). It merits a standalone diagnosis in its own right.

* * *

The condition was controversial from the beginning, as are many women's issues. Debates raged within psychiatry, and society at large, about the validity and the possible negative implications of PMDD. Skeptics, including some physicians, argued that it was an over-pathologization of the female body, that little evidence existed for a diagnosis, and that it would only serve to perpetuate the notion that "emotional displays that are considered normal in men are seen as a mental disorder in women"—that there's no equivalent male mental disorder linked to testosterone. They believed that a diagnosis would undermine women's health and social progress by allowing "a sexist society" to weaponize it against all women (Daw). One study in 1992 even compared the daily symptom ratings of women who met PMDD diagnostic criteria with those who didn't, as well as with those of women using oral contraceptives and even with those of men, and claimed to find no difference in said symptom ratings (Gallant).

However, even the authors of that study admitted that functioning in those with severe premenstrual symptoms appeared to be negatively affected while functioning was not affected in any other group (Gallant), only undermining their point that the condition didn't exist. Furthermore, non-skeptics advised that those arguments against an official diagnosis were themselves sexist and belittling of women, that such dismissal "increase[s] the stigma of mental disorders . . . and can discourage women from seeking help" for genuinely treatable issues. It's 'benevolent' sexism, disguised as concern for our social progress when it's really a justification for neglecting female needs. The concept that "'We're conditioned to want a pill. Instead of . . . a nap or a divorce, or the ERA'" (Daw) is so

viscerally insulting: so I just need to sleep off my depression? I just need a constitutional amendment to undo my abrupt desire to die? Perhaps a divorce will cure my debilitating, excruciating anxiety! (I'm not married.) Perhaps I won't want to eat a bullet if I just believe that nothing's wrong with my body! (There is.) Assumptions such as these (which were, quite notably, made by a female physician who claimed to be a feminist—I'd hardly call that feminism) only contribute to the continued ignorance surrounding female-specific health concerns that already go undertreated and underdiagnosed. Societal views about menstruation and femininity can and *will* change, but this condition will not just fade away if we deny its existence. Denial never got me, my brother, my parents, or my grandparents anywhere in a mentally ill bloodline. That's a sample size of eight for the curious.

And is it really so far fetched to believe that some women may have premenstrual symptoms severe enough to be a disorder? Sadness, anger, angst, and other emotions can become overbearing enough to warrant their own condition names and treatments. And is it not hypocritical to acknowledge that hormonal shifts during the menstrual cycle can be both beneficial and detrimental for the brain (Gorvett), while simultaneously asserting that the symptoms of such shifts could *never* be so severe as to be a condition worth treating? Overpathologizing the female body is a genuine concern, of course, as medicine has previously been wrongfully weaponized against us. But isn't it sexist in itself to willfully undertreat female suffering in the name of a twisted form of feminism that only regards our economic or social status at the expense of our health? Haven't we been dismissed enough?

* * *

Fortunately, this condition and its possible causes are currently being explored by the medical field. One theory suggests that a gene mutation in the ESC/E(Z) estrogen receptor complex causes an abnormal sensitivity in these receptors to fluctuations in sex hormones, amplifying luteal symptoms that would otherwise be minor and manageable, or even nonexistent (Dubey). Another proposes that increased luteal allopregnanolone (ALLO), a metabolite of progesterone, acts as an allosteric inhibitor in gamma aminobutyric acid receptors (Hantsoo and Epperson), meaning that ALLO binds to a place distinct from the active site and alters the shape of the receptor. Because that shape is so crucial to chemical interactions, the compounds that these receptors are

intended to bind to, such as serotonin or dopamine, become unable because they no longer 'fit' within the active site. This might explain why selective serotonin reuptake inhibitors such as sertraline (Zoloft) and fluoxetine (Prozac) are very effective for treating PMDD, with "60 to 90 percent" of diagnosed patients responding well to SSRIs, "compared with 30 to 40 percent of those who take a placebo" (Harvard). Patients with PMDD also respond far more rapidly to SSRIs than those with other types of depression, allowing for a cyclic treatment that doesn't require medication every day of the month but rather only during premenstrual episodes for some sufferers (Harvard), also suggesting a stronger role of serotonin. Furthermore, a variation on the serotonin transporter gene has been demonstrated to contribute to higher scores of neuroticism, or tendency to feel unfavorable emotions, and higher neuroticism has been tied to increased severity of premenstrual symptoms in those with PMDD, as well as to other mental health conditions such as major depressive disorder (Gingnell). It's likely that all three of these theories are at least partially correct: abnormal reception, allopregnanolone interference, and personality traits may all contribute to the disorder, or different combinations of said factors may contribute to the variation in treatment efficacy between patients.

It's also possible that the brain simply functions differently—perhaps from causes explored in the previous paragraphs—during the luteal phase for women with PMDD. One study explored the possible role of overactivity in the cerebellum regarding the mental and emotional symptoms during the luteal phase, and it was determined that women with the disorder have higher activity in portions of the cerebellum that "have been implicated in emotional processing and mood disorders." Stimulation of said areas even proved beneficial for reducing "anger and depression" in those with other psychiatric conditions, such as depression or psychosis (Rapkin). In other words, parts of the cerebellum—the posterior, or 'in the back', nodule-looking part of the brain that rests below that large wrinkly portion—are overactive, thus affecting how we process emotional stimuli and producing dysphoric symptoms aggravated by our sexual biology.

I found myself accidentally on Zoloft, one of the most effective medications for PMDD, back in February, and it's been far more ameliorative than the Lexapro I had been taking before, both for my premenstrual symptoms and my generalized anxiety. My own psychiatrist

recommended that I take more Zoloft during my premenstrual phase, a schedule mentioned in the cited Harvard article, and such a schedule does indeed work. Yet I can also believe, beyond whatever serotonin affair is occurring in my skull, that brain structure plays a role in both directions of my illness; perhaps overactivity in the cerebellum creates the initial dysphoric feelings at the onset of the disorder, triggered by puberty, which in turn promote dysphoric feelings over curative or palliative feelings such as joy and excitement. And when you've been in such a cycle long enough, your brain is likely predisposed more toward neuroticism than toward a healthy emotional baseline. We know that those who have one episode of major depression, for instance, are at a 20–30 percent risk of having another; by your fourth episode, you're predisposed to a 70–80 percent risk of recurrence (Zindel) with less time between recurrences that become greater in severity (Solomon 56). I'm sure the consistent, cyclic nature of premenstrual dysphoria is a part of why depression and anxiety are so staggeringly comorbid—you escape for one week only to spiral back for another. There is already so little time between episodes that they eventually blend together; often, an episode of premenstrual dysphoria is itself the trigger for a distinct episode of depression or anxiety. It seemingly never ends.

What makes this particular depression exceptionally difficult is its visceral nature: our sexuality is quite private. Our sex organs, our uteruses, our ovaries are inside of us, difficult and often excruciating to access, as well as heavily scorned, and we're apprehensive to mention that our sadness, or anxiety, or corporeal pain may have even one thread of a relationship with our periods. How does someone receive treatment when their symptoms are repeatedly discounted and deridden as common feminine overexaggeration by their own physicians and gynecologists—by other women? And in a country with inconsistent, at times abysmal, sexual education and perspectives, adolescents adjusting to their menses might not realize that their premenstrual symptoms are abnormally severe or unhealthy, especially when all they receive for seeking advice from parents, teachers, or friends is to curl up in bed with a pint of ice cream—when their tears are met with "Oh *honey*" and their cramps with a thousand milligrams of ibuprofen that does nothing. No one ever believed my mood symptoms were abnormal; to be fair, I've only ever divulged to two people the sincere extent of it, one of them being me. For all everyone else knew, I was just irritable and gloomy sometimes with

no real reason other than 'being a teenager,' yet nobody ever seemed to openly consider that my eventually permanent moodiness was a symptom of something more, and if they did, they never mentioned it to me.

But if one does, incredibly and fortunately, find themselves believed and heard, most often years later, treatments do exist that *might* alleviate their misery: alterations in diet, exercise, and sleep; vitamin supplements; cognitive behavioral therapy, or CBT; hormonal contraceptives; and SSRIs or other antidepressant and antianxiety medications (Harvard). But the only 'cure' is a total hysterectomy (removal of the uterus) and oophorectomy (removal of the ovaries), which release the sex steroids to which our premenstrually dysphoric bodies are so abnormally responsive. The only true prevention is to be born male.

* * *

The only benefit to this disorder for me, in comparison to my other conditions, is its predictability, which also makes it so horrifically annoying and cruel: I don't know when my major depression will suddenly reappear, as it did in the beginning of last month, or recede, as it did last week with a change in my medication schedule. But I do know when my premenstrual depression, distinct in both timing and characteristics from my other depression, will arrive. I know it's here when I snap at the people who are kindest to me, or am so fatigued I can hardly lift my limbs, or am cussing at evolution for painful menstrual cramps (uterine muscle is extraordinarily thick and toned—helpful for childbirth, terrible the rest of the time). I'm afraid of both waking up and never waking up again. Every decision is an excruciating debate against myself with no winner, every compliment an incitement of war, every embrace a cage I must thrash out of. Love itself becomes intolerable: I am inherently and irrevocably unlovable, no one can or should or does love me as deeply as I love them, I'm hideous and malicious and utterly cruel. These thoughts all ricochet as I annihilate relationships with even the most devoted in my life, as I weep over the intimacy I both crave and cannot bear, that I ask for only to rescind it, that I plead for only to hate it. Reciprocation of love becomes just as impossible as receiving it. Describing it as the flip of a switch is entirely accurate: in the morning, I'll be pondering career options and planning twenty years into the future with my partner; that afternoon I won't see past the next twenty minutes and come within an inch of splitting up our relationship for no reason. Out of nowhere, this

condition blindsides even the most optimistic and successfully treated of us. All I can do is pop an extra 25 milligrams of Zoloft and hope it works that month.

Being a stereotype of the over emotional and irrational woman profoundly disheartens me. I can only hope others will understand that this is not womanhood itself, but rather a rare side effect of womanhood, that it's an illness completely separate from premenstrual syndrome, far closer to severe depression and anxiety than to the premenstrual syndrome that is so common and normal among the rest of us. Much as depression is itself a side effect of our humanity, premenstrual dysphoria is a side effect unique to the female sex; perhaps, for as long as we are human and female and experience any premenstrual symptoms at all, it will continue to exist. Depression has existed for as long as we have, and I'm sure the luteal version isn't special in that regard.

I didn't know when I was twelve, excited about menarche and by finally becoming a woman, that menstruation itself—what I believed to be an almost spiritual experience, healthy and mature—would become a trigger. I'd always wanted desperately to grow up, yet growing up has almost killed me dozens of times in ways metaphorical and not. I guess nothing will change until thirty years from now, when those two orbs within me cease to produce any sex hormones at all, and after an intense yet relatively brief period of menopausal anguish, I'll finally be free from that portion of my biology. Hell, if I really want to, I can induce it myself much sooner by getting a hysterectomy; but major abdominal surgery isn't my—or most people's—first option, and I want at least the opportunity to have children within the next fifteen years. What I'm doing will have to suffice for now, until it doesn't. That's how it goes: you wait until you can't bear it, and then the most drastic option becomes the most reasonable one; lose your uterus to save yourself from self-destruction or suicide. It's hardly an easy or clear decision, but too often it's a necessary one, and I only hope that the decision will one day no longer have to be between keeping your uterus or keeping your health—and consequently, your life.

## Works Cited

Daw, Jennifer. "Is PMDD real?" *American Psychological Association*, vol. 33, no. 9, Oct. 2002. www.apa.org/monitor/oct02/pmdd

Dubey, Neelima, et al. "The ESC/E(Z) complex, an effector of response to ovarian steroids, manifests an intrinsic difference in cells from women with Premenstrual Dysphoric Disorder." *Molecular Psychiatry*, vol. 22, no. 8, Aug. 2017, pp. 1172-1184. doi:10.1038/mp.2016.229. www.ncbi.nlm.nih.gov/pmc/articles/PMC5495630/

Gallant, Sheryle, et al. "Using daily ratings to confirm premenstrual syndrome/late luteal phase dysphoric disorder. Part II. What makes a 'real' difference?" *Psychosomatic Medicine* vol. 54, no. 2, Mar. 1992, pp. 167–-81. doi:10.1097/00006842-199203000-00004. www.researchgate.net/publication/21589482_Using_daily_ratings_to_confirm_premenstrual_syndromelate_luteal_phase_dysphoric_disorder_Part_II_What_makes_a_real_difference

Gingnell, Malin, et al. "Neuroticism-related personality traits are related to symptom severity in patients with premenstrual dysphoric disorder and to the serotonin transporter gene-linked polymorphism 5-HTTPLPR." *Archives of Women's Mental Health,* vol. 13, no. 5, 4 May 2010, pp. 417–23. doi:10.1007/s00737-010-0164-4. www.ncbi.nlm.nih.gov/pmc/articles/PMC2941046/

Gorvett, Zaria. "How the menstrual cycle changes women's brains—for better." *BBC Future*. 6 Aug., 2018. www.bbc.com/future/article/20180806-how-the-menstrual-cycle-changes-womens-brains-every-month

Hantsoo, Liisa, and C. Neill Epperson. "Allopregnanolone in premenstrual dysphoric disorder (PMDD): Evidence for dysregulated sensitivity to GABA-A receptor modulating neuroactive steroids across the menstrual cycle." *Neurobiology of Stress,* vol. 12, May 2020, doi.org/10.1016/j.ynstr.2020.100213

Owens, Sarah A., and Tory Eisenlohr-Moul. "Suicide Risk and the Menstrual Cycle: a Review of Candidate RDoC Mechanisms." *Current Psychiatry Reports,* vol. 20, no. 11, 6 Oct. 2018, doi:10.1007/s11920-018-0962-3. www.ncbi.nlm.nih.gov/pmc/articles/PMC6844188/

Pilver, Corey E., et al. "Premenstrual dysphoric disorder as a correlate of suicidal ideation, plans, and attempts among a nationally representative sample." *Social Psychiatry and Psychiatric Epidemiology*, vol. 48, no. 3, Mar. 2013, pp. 437–46. doi:10.1007/s00127-012-0548-z. www.ncbi.nlm.nih.gov/pmc/articles/PMC3774023/#R24

Rapkin, Andrea J., et al. "The Cerebellum and Premenstrual Dysphoric Disorder." *AIMS Neuroscience*, vol. 1, no. 2, 30 July 2014, pp. 120–141. doi:10.3934/Neuroscience.2014.2.120. www.ncbi.nlm.nih.gov/pmc/articles/PMC5338637/

Ro, Christine. "The overlooked condition that can trigger extreme behaviour." *BBC Future.* 15 Dec. 2019. www.bbc.com/future/article/20191213-pmdd-a-little-understood-and-often-misdiagnosed-condition

Segal, Zindel, et al. "Challenges in Preventing Relapse in Major Depression: Summary of a National Institute of Mental Health Workshop on State of the Science of Relapse Prevention in Major Depression." *National Institute of Mental Health,* 2001, static.cigna.com/assets/chcp/pdf/resourceLibrary/educationCenter/memberResources/challengesofPreventingRelapseinDepressionNimh.pdf, PDF file.

Solomon, Andrew. *The Noonday Demon: An Atlas of Depression*. (Reprint ed.), Scribner Books, 2001, p. 56.

Spratt, Victoria. "'I Felt Suicidal': Living with Premenstrual Dysphoric Disorder." *Refinery29.* 11 Sept. 2018. www.refinery29.com/en-gb/living-with-pmdd

"Treating premenstrual dysphoric disorder." *Harvard Health Publishing*, 30 July 2019.

Yen, Ju-Yu et al. "Early- and Late-Luteal-Phase Estrogen and Progesterone Levels of Women with Premenstrual Dysphoric Disorder." *International Journal of Environmental Research and Public Health*, vol. 16, no. 22, 7 Nov. 2019, pp. 1–11. doi:10.3390/ijerph16224352. www.ncbi.nlm.nih.gov/pmc/articles/PMC6888463/