Can premenstrual symptoms help improve women's healthcare?

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31 March 2025

Professor Belinda Pletzer from Paris Lodron University of Salzburg explores if the assessment of premenstrual symptoms can help improve women's healthcare

Premenstrual dysphoric disorder (PMDD) is not uncontroversial as a diagnosis. [1] It was added to the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders 5 (DSM-5) in 2013, but only made it into the 11th Revision of the International Classification of Diseases (ICD-11) – valid since 2022. It is characterised by the cyclical recurrence of a total of five psychological symptoms, including at least one out of four key psychiatric symptoms (mood lability, depression, anxiety, irritability) in the premenstrual phase. Symptoms have to subside a few days after the onset of menses and severely impact women's everyday functioning and quality of life.

The controversy surrounding the diagnosis goes both ways, with some authors arguing that psychological changes in the premenstrual phase are normal and should not be pathologised. At the same time, others view the diagnostic criteria of the DSM-5 as too strict, given that a severe impact on everyday life can also occur with fewer than five symptoms. Clinical and subclinical forms of PMDD are thus often summarised and studied as premenstrual syndrome (PMS).

Irrespective of the precise diagnostic cut-off, premenstrual symptoms pose a significant burden of disease worldwide [2], which is also reflected in the increased suicide risk associated with untreated PMDD [3]. Despite these severe implications for women's health and well-being, PMDD is hardly diagnosed and rarely treated as demonstrated in five Western countries [4].

Over the past decades, over 500 women have participated in our menstrual cycle studies, of whom about 10% fulfilled the psychometric criteria for PMDD. [5,6] However, among these women, only a handful have ever received a diagnosis of PMDD. The ongoing controversy and the discrepancy between clinical diagnoses and psychometric assessments suggest that it is worthwhile to pose the question:

How "normal" are premenstrual symptoms?

Opponents of a PMDD diagnosis argue that "normal" mood changes along the menstrual cycle should not be pathologised. But how common is it really to experience such mood changes? Indeed, studies that do not consider PMDD diagnoses find a menstrual or

premenstrual mood worsening across women on average. [7,8] However, these studies also observe substantial variability in (pre)menstrual mood changes, suggesting that a sub-population of women may drive average changes.

Following up on this question, we addressed premenstrual mood changes in a sample with PMS/PMDD according to psychometric criteria compared to a sample who did not fulfil those criteria. Not only was the premenstrual mood worsening stronger in the group with PMS/PMDD, but mood worsening was completely absent in the group who did not fulfil the psychometric criteria for PMS/PMDD. [9]

Given that the group with PMS/PMDD was recruited from a small population of women, while the control group was sampled from the majority of the population, this finding is by no means trivial. It suggests that in the majority of women, mood changes vary but are, on average, non-existent.

However, in a sub-population of women, mood changes along the menstrual cycle are so strong that they are statistically detectable even if averaged with a large proportion of women who do not experience those changes. It should also be noted that this pattern is selective for psychological symptoms, by which PMDD is characterised. While physical symptoms may be present in both groups, they do not explain the psychological symptoms.

None of these findings should come as a surprise at this point. The prevalence rates we observe in our studies are in good accordance with early epidemiological estimates, which suggest that 3-8% of women fulfil the criteria for PMDD [10] and up to 25% may experience PMS. However, cut-off criteria for PMS vary from study to study. I thus conclude that rather than the “pathologisation” of “normal” mood fluctuations, it is the “normalisation” of premenstrual symptoms that poses a risk to women’s equality and healthcare around the world.

How many women experience discrimination in the workplace because it is simply presumed they have premenstrual mood changes? How often do women get asked whether they are on their period when they display signs of irritability, thereby invalidating their emotional responses?

In the meantime, women who seriously suffer from PMS/PMDD are not diagnosed and – as a consequence – cannot receive treatment for their symptoms because everyone – women and doctors alike – assume that those symptoms are just “normal”. This phenomenon of normalising severe responses to hormonal shifts in women is not unique to premenstrual symptoms but can be found over various domains (e.g., endometriosis) across the female lifespan. We should seriously ask ourselves as a society why we consider it normal for women to suffer.

How premenstrual symptoms can improve women’s healthcare

Beyond the direct implications of suffering from an undiagnosed disorder without treatment, there may be long-term consequences for women's healthcare. While the aetiology of PMS/ PMDD is not well understood, current psychobiological models suggest altered neurophysiological responses to normal hormonal fluctuations. However, findings have been accumulating only recently that these responses may not be selective to the premenstrual phase but extend to other periods of hormonal fluctuations, like the post-partum period or hormonal contraceptive use. Women with PMDD have a higher risk for experiencing post-partum depression [(11)], as are women who experience depressive symptoms during hormonal contraceptive use [(12)].

Pill pauses during hormonal contraceptive use elicit a similar range of psychological symptoms as the (pre) menstrual phase [(7)], suggesting that premenstrual symptoms should be considered when devising a treatment plan for hormonal contraception, not only with regards to the contraceptive formulation but also with regards to the intake scheme.

For obvious reasons, research is in the early stages in that respect. Still, let us assume that neurophysiological responses to hormonal fluctuations can be linked across the lifespan. In that case, current data suggest that premenstrual symptoms may be the first indication of heightened psychological sensitivity to such fluctuations. As such, diagnosing PMS/ PMDD may be an important puzzle piece that can help identify women at risk for post-partum depression, peri-menopausal depression or adverse mood effects to hormonal contraceptives. Thus, recognising premenstrual symptoms may improve women's healthcare throughout their lifespan via early intervention, closer monitoring and counselling, as well as individualised treatment plans.

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Stakeholder Details

- Article Categories
- Health

- Article Tags
- Pregnancy
- Women's health

- Publication Tags
- OAG 046 – April 2025

- Stakeholder Tags
- SH - Centre for Cognitive Neuroscience - Paris Lodron University of Salzburg

Primary Contributor

Belinda Pletzer
Paris Lodron University of Salzburg

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