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The Hidden Struggle: Premenstrual Depression – Its Impact on Women's Health and Management Strategies: A Narrative Review

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Abstract

Background: *Premenstrual depression, including Premenstrual Syndrome (PMS) and Premenstrual Dysphoric Disorder (PMDD), represents a significant yet underrecognized contributor to women's mental health burden. Hormonal fluctuations during the luteal phase interact with neurotransmitter systems, particularly serotonin and GABA, leading to affective and somatic symptoms that impair daily functioning.* ***Objective:*** *This systematic review synthesizes evidence on the prevalence, pathophysiology, psychological impact, and management strategies of premenstrual depression among reproductive-aged women, with particular emphasis on Indian populations.* ***Methods:*** *A systematic search of electronic databases including PubMed, Google Scholar, ScienceDirect, Springer, and related peer-reviewed sources was conducted for studies published between 2015 and 2024. Eligible studies included cross-sectional studies, randomized controlled trials, systematic reviews, and meta-analyses focusing on women aged 20–40 years. Outcomes assessed included depression, anxiety, stress, nutritional status, symptom severity, and therapeutic interventions. Studies involving menopausal women or conducted outside defined criteria were excluded.* ***Results:*** *Reported prevalence of PMS in India ranged from 14.3% to 74.4%, while PMDD prevalence varied from 3.7% to 65.7%. Evidence indicates strong associations between hormonal sensitivity, serotonergic dysfunction, and mood disturbances. Premenstrual depression significantly affects work productivity, academic performance, sleep quality, and overall quality of life. Non-pharmacological interventions – including dietary modification, calcium and omega-3 supplementation, exercise, and yoga – demonstrated symptom reduction. Selective serotonin reuptake inhibitors (SSRIs) remain the gold-standard pharmacological treatment, with additional benefits observed from hormonal therapies.* ***Conclusion:*** *Premenstrual depression substantially impacts women's psychological and functional well-being. Early diagnosis and individualized, multimodal treatment approaches are essential to improve outcomes and reduce disease burden.*

Keywords: Mental health interventions, premenstrual depression symptoms, premenstrual syndrome, serotonin imbalance, SSRIs

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INTRODUCTION

Adolescence represents a critical period of physical and psychological transformation that begins with puberty and continues into early adulthood. During this phase, hormonal changes initiate menstruation, which often introduces new physiological and emotional challenges. Many adolescent girls report menstrual-related difficulties as one of their primary health concerns [1].

The concept of premenstrual symptoms was first described by Frank and Horney in 1931. They

identified a cluster of physical and psychological symptoms occurring prior to menstruation, later recognized as a distinct clinical entity [2]. Premenstrual Syndrome (PMS) is a common condition among women of reproductive age. It encompasses a broad range of physical, emotional, and behavioral symptoms that arise during the luteal phase of the menstrual cycle and resolve shortly after menstruation begins [3].

Women with PMS experience both somatic and psychological symptoms. Common physical manifestations include headache, breast tenderness and swelling, abdominal pain and cramps, weight gain, dizziness or fainting, fatigue, palpitations, pelvic discomfort, changes in bowel habits, increased appetite, generalized body aches, skin changes, including rashes and acne, nausea and vomiting, muscle and joint pain [4, 5].

Halbreich and Monacelli (2004) further characterized *Premenstrual Dysphoric Disorder (PMDD)* as a severe form of PMS marked by pronounced mood disturbances and significant functional impairment [6]. Unlike mild PMS, PMDD produces substantial psychological distress and interferes with occupational, academic, and interpersonal functioning.

PREVALENCE

In India, reported PMS prevalence ranges from 14.3% to 74.4%, while PMDD prevalence varies between 3.7% and 65.7%. Among young Indian women, approximately 43% report clinically significant premenstrual symptoms [7].

According to the DSM-5 data from the United States, PMDD affects approximately 1.8% to 5.8% of menstruating women within a 12-month period. Additionally, 13% to 18% of women with PMS experience clinically significant distress [7].

Prevalence rates vary globally Europe: Spain: 1.1%, Poland: 2.1%, Switzerland: 3.1%. East Asia (Japan, Korea, China, Taiwan, Hong Kong, Macau): 1.3%–2.8%. Latin America: Brazilian cohort studies report a PMDD prevalence of 17.6% [7].

These variations likely reflect differences in diagnostic criteria, cultural perceptions, and study methodologies.

Epidemiology

Severe PMS and PMDD contribute substantially to functional impairment, like other depressive disorders. Women with severe symptoms report increased work absenteeism, reduced productivity, and diminished quality of life. Meta-analytic evidence also demonstrates an association between PMDD and increased risk of suicidal ideation, suicide attempts, and preparatory behaviors [8].

These findings underscore the significant psychological and occupational burden associated with premenstrual disorders.

Pathophysiology

The menstrual cycle consists of a sequence of coordinated biological events that prepare the uterine environment for potential conception. A typical cycle lasts approximately 28 days and begins on the first day of menstruation, when the endometrial lining sheds in the absence of fertilization (Figure 1).

Follicular Phase

The follicular phase, which generally spans the first 14 days of the cycle, is driven by rising levels of 17-β estradiol, an ovarian steroid hormone. Gonadotropin-releasing hormone (GnRH) pulses from the hypothalamus stimulate the anterior pituitary gland to release follicle-stimulating hormone (FSH) and luteinizing hormone (LH). In response, ovarian follicles produce 17-β estradiol.

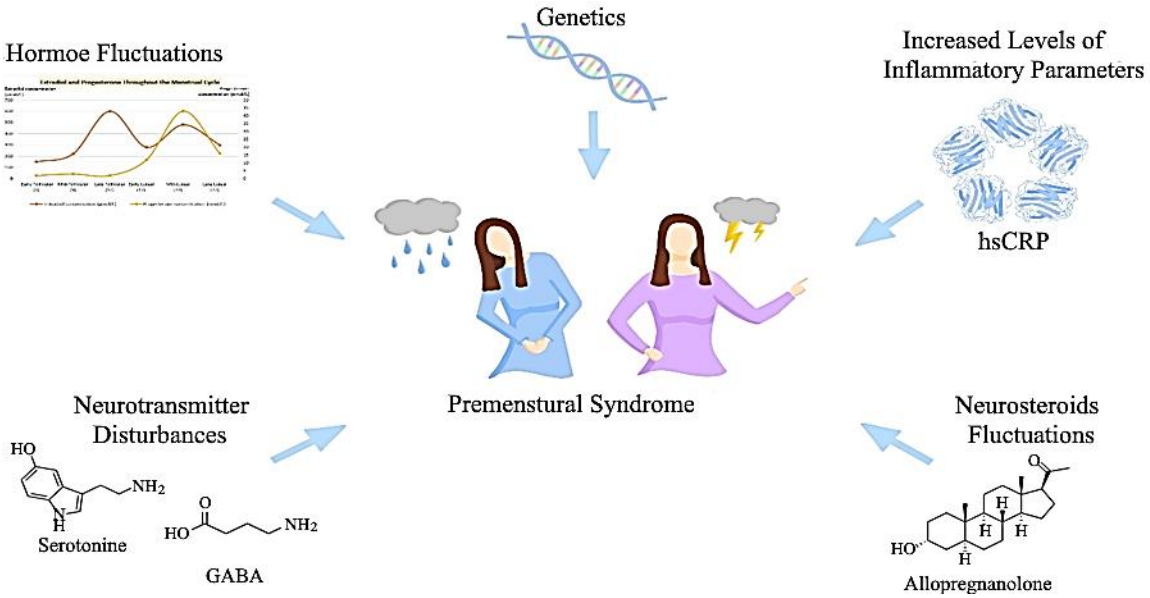

Figure 1. Pathophysiology of Premenstrual Depression Symptoms.

Estradiol promotes endometrial proliferation and prepares the cervical environment for fertilization. It also regulates FSH secretion through a negative feedback mechanism. As FSH levels decline, most developing follicles regress, while a single dominant follicle continues to mature and produce estradiol. Sustained estradiol production eventually triggers a positive feedback response at the pituitary level, resulting in a surge of FSH and LH that induces ovulation – the release of a mature oocyte from the dominant follicle [8].

Luteal Phase

Following ovulation, the cycle enters the luteal phase, which lasts approximately 14 days. The ruptured follicle transforms into the corpus luteum, which secretes progesterone and smaller amounts of estradiol. Progesterone stabilizes and further prepares the endometrium for implantation.

If fertilization does not occur within the implantation window, the corpus luteum degenerates into the corpus albicans. As progesterone and estrogen levels decline, hormonal support for the endometrium diminishes, leading to shedding of the uterine lining and initiation of a new menstrual cycle [8].

Pathophysiology of PMS and PMDD

Current research suggests that PMS and PMDD result from abnormal sensitivity to normal cyclical hormonal fluctuations rather than absolute hormone levels. In susceptible individuals, interactions between ovarian steroids and central neurotransmitter systems contribute to symptom development (Figure 2).

Neurobiological Mechanisms

Serotonin

Reduced serotonergic activity correlates with mood disturbances, irritability, and depressive symptoms. The clinical efficacy of selective serotonin reuptake inhibitors (SSRIs) supports serotonin's central role in symptom pathogenesis.

GABA

Alterations in GABAergic activity affect neuronal excitability and emotional regulation. Medications that enhance GABA function may alleviate certain symptoms.

Beta-Endorphins

Fluctuations may contribute to affective and pain-related symptoms.

Hormonal changes in estrogen and progesterone modulate these neurotransmitter systems, amplifying vulnerability in sensitive individuals.

Researchers have also explored the role of vitamins and minerals in PMS management; however, current evidence remains limited and inconsistent regarding their therapeutic effectiveness [8].

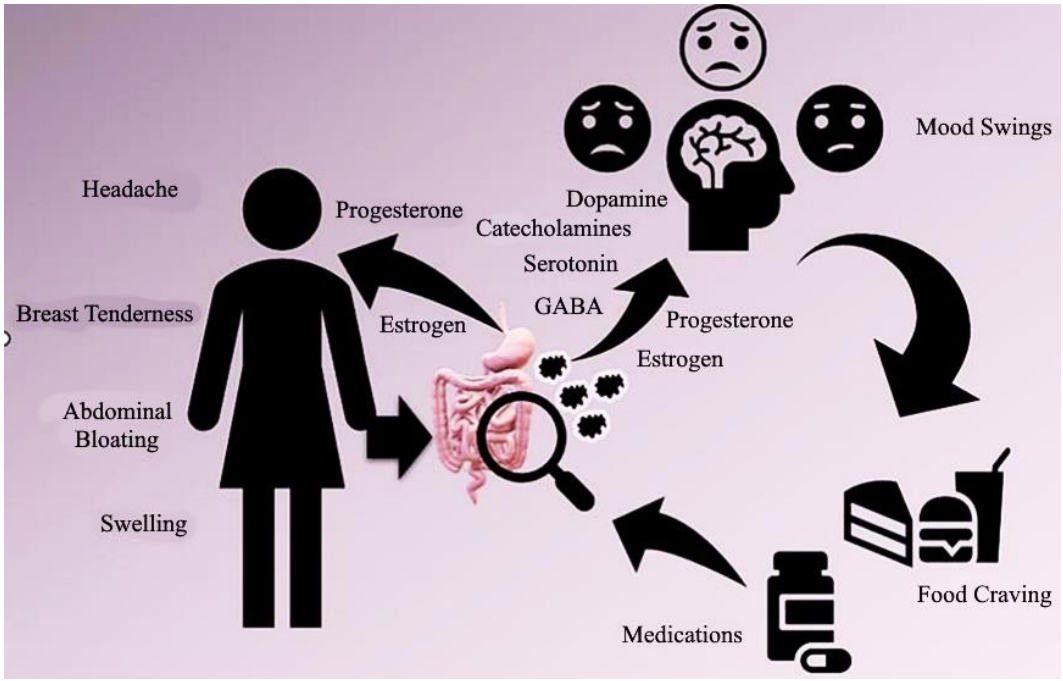

Figure 2. Impact of Gut Microbiota on Premenstrual Disorders [9].

Etiology

Premenstrual Syndrome (PMS) and Premenstrual Dysphoric Disorder (PMDD) represent clinically significant manifestations of premenstrual mood disturbances. Although their precise etiology remains unclear, current evidence suggests a multifactorial origin involving hormonal sensitivity and neurobiological mechanisms.

Women with PMS or PMDD appear to exhibit heightened sensitivity to normal cyclical fluctuations in ovarian hormones, particularly estrogen and progesterone, rather than abnormal hormone levels. During the luteal phase of the menstrual cycle, changes in these hormones trigger emotional and physical symptoms in susceptible individuals.

Symptoms often improve during pregnancy and after menopause, further supporting the role of ovarian hormones in symptom development. However, symptom patterns may fluctuate across the reproductive lifespan. Some studies indicate that women with a history of PMS face an increased risk of mood disturbances during the menopausal transition, likely due to altered hormonal regulation.

Emerging evidence also highlights the interaction between ovarian steroid hormones and central neurotransmitter systems. In particular, serotonin plays a critical role in mood regulation, and its dysregulation contributes significantly to affective symptoms associated with PMS and PMDD. These findings suggest that abnormal neurobiological responses to normal hormonal changes underlie the pathogenesis of premenstrual disorders [10].

METHODOLOGY

Study Design

This systematic review was conducted in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020 guidelines. The review aimed to synthesize

evidence on the prevalence, pathophysiology, psychological impact, and management strategies of Premenstrual Syndrome (PMS) and Premenstrual Dysphoric Disorder (PMDD). A comprehensive literature search was performed across the following electronic databases: PubMed, Google Scholar, ScienceDirect, Springer, ResearchGate, Sage Journals, The American Journal of Psychiatry, Journal of Women's Health (Figure 3).

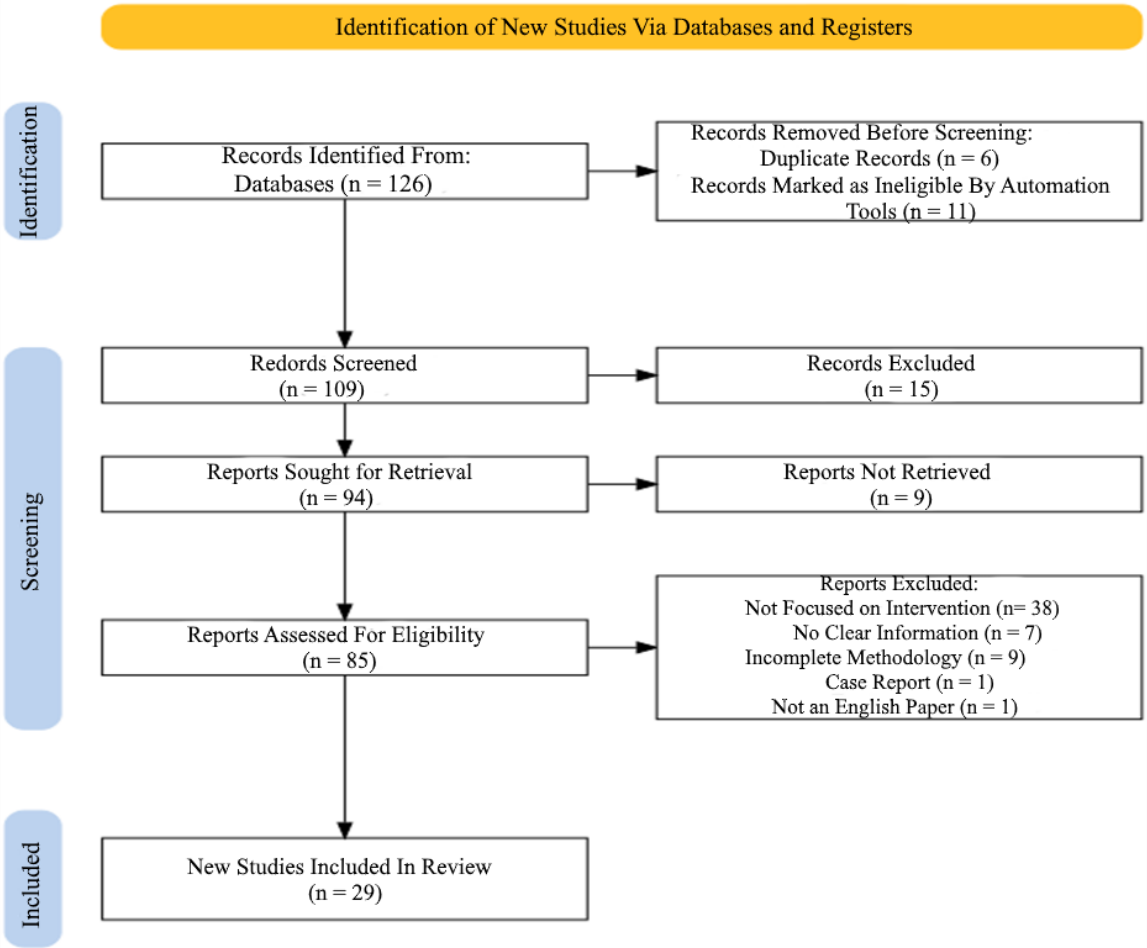

Figure 3. PRISMA 2020 flow diagram for new systematic reviews which included searches of databases.

The search covered studies published between 2015 and 2024. Keywords used included: "Premenstrual syndrome", "Premenstrual dysphoric disorder", "Premenstrual depression", "PMS prevalence", "PMDD epidemiology", "Pathophysiology of PMS/PMDD", "Coping strategies", "Pharmacological treatment of PMDD", Boolean operators (AND, OR) were applied to refine the search strategy.

- *Inclusion Criteria:* Cross-sectional studies, randomized controlled trials (RCTs), systematic reviews, and meta-analyses, Studies involving women aged 18–45 years (reproductive age group), Articles published in English, Studies assessing prevalence, psychological impact, or management of PMS/PMDD, Studies reporting clear methodology and measurable outcomes.
- *Exclusion Criteria:* Studies involving menopausal women, case reports, non-English publications, Studies with incomplete methodology, Articles not focused on PMS/PMDD interventions.

Data were extracted using a structured format that included author and year, study design, study population and sample size, intervention type, outcome measures, and key findings.

Quality Assessment

The methodological quality of included randomized controlled trials was assessed based on Randomization method, Blinding procedures, Allocation concealment, Completeness of outcome reporting. Cross-sectional studies were evaluated for sampling strategy, measurement validity, and potential bias.

Premenstrual Symptoms and Mental Health

Several studies demonstrate that menstrual cycle fluctuations influence psychological well-being. McPherson and Korfine (2004) reported associations between menstrual cycle phases and increased vulnerability to depression, anxiety, emotional instability, and disordered eating behaviors [11].

Cultural myths and taboos surrounding menstruation further exacerbate psychological distress. Persistent stigma may negatively affect adolescents' emotional development, self-perception, and overall well-being. In some contexts, misinformation contributes to discrimination and social withdrawal, which intensify psychological burden [11, 12].

Depression, anxiety, and stress levels correlate positively with the severity of premenstrual symptoms [13, 14]. Evidence also suggests that nutritional status influences psychological resilience during the menstrual cycle. Fukushima et al. (2020) highlighted that balanced dietary habits may reduce psychological distress among women experiencing menstrual symptoms [15].

Impact on Productivity and Quality of Life

Premenstrual Syndrome (PMS) significantly affects daily functioning and occupational performance. Research indicates that women experiencing PMS report: Increased absenteeism, Reduced workplace productivity, Impaired concentration and motivation, decreased academic performance among students Although one study from Japan reported no direct association between PMS and broader economic burden, reduced productivity related to menstruation was estimated at approximately 491 billion JPY annually [11].

Sleep quality also declines during symptomatic phases. Women with PMS are nearly twice as likely to experience poor sleep, which further impairs cognitive function and emotional regulation [16]. Somatic symptoms, such as abdominal bloating (reported by 35.2% of affected individuals), frequently co-occur with social withdrawal and mood changes, compounding functional limitations.

During the luteal phase, physical discomfort and psychological distress can disrupt interpersonal relationships, family responsibilities, and social engagement [16]. In professional environments, reduced work-related quality of life may affect employee performance, retention, and overall organizational productivity.

Comorbidity and Broader Implications

Menstrual distress encompasses both physical and psychological symptoms, including mood swings, depression, and anxiety [11]. Evidence suggests comorbidity between major depressive disorder and severe premenstrual symptoms, which may intensify emotional distress and functional impairment [16].

Given the increasing participation of women in the workforce, addressing premenstrual mental health concerns through early identification, supportive workplace policies, and evidence-based treatment strategies is essential to improve both individual well-being and societal productivity.

Coping Strategies

Women adopt various coping strategies to manage the symptoms of premenstrual depression. Although the exact etiology of Premenstrual Syndrome (PMS) and Premenstrual Dysphoric Disorder (PMDD) remains unclear, management primarily focuses on symptom reduction and functional improvement.

Treatment approaches include both pharmacological and non-pharmacological interventions. Clinical guidelines generally recommend non-pharmacological strategies as first-line management, particularly for mild to moderate symptoms. Premenstrual depression can significantly disrupt emotional well-being and daily functioning; therefore, increasing awareness and promoting early intervention are essential. Incorporating healthy dietary practices, regular physical activity, and behavioral modifications forms a central component of supportive care [6].

Common Coping Strategies

Women frequently report using complementary and lifestyle-based approaches, including: Herbal medicines, Dietary supplements, Massage therapy, Relaxation techniques, Warm showers or heat therapy, Regular physical exercise, Caffeine modification, Over-the-counter or prescribed medications No single intervention universally eliminates symptoms. Effective management typically requires an individualized, multimodal approach tailored to symptom severity and patient preference.

While pharmacological treatments, such as SSRIs or hormonal therapy, can be effective, they may require long-term use and carry potential adverse effects. Therefore, clinicians often recommend combining medical therapy with stress management, nutritional optimization, and regular exercise to achieve sustained symptom control [6].

Early diagnosis, structured stress reduction, and consistent lifestyle modification substantially improve outcomes in women with PMS and PMDD.

NON-PHARMACOLOGICAL THERAPY

Dietary Habits and Nutritional Intake

Dietary patterns influence the severity of symptoms in Premenstrual Syndrome (PMS) and Premenstrual Dysphoric Disorder (PMDD). Poor nutritional habits and elevated body mass index (BMI) may increase symptom intensity. Therefore, adopting a balanced dietary pattern plays a critical role in symptom management [6].

The following dietary recommendations may help reduce premenstrual symptoms:

- Consume six small meals per day instead of three large meals to maintain stable blood glucose levels.
- Reduce intake of fat, refined sugar, alcohol, and excessive salt; increase consumption of fruits, vegetables, and fiber-rich foods.
- Limit caffeine-containing beverages, such as coffee, tea, and cola, to reduce irritability and sleep disturbances.
- Include calcium-rich foods (e.g., yogurt, green leafy vegetables) and vitamin D sources (e.g., mushrooms, egg yolks, fish liver oils), as these nutrients support mood regulation and hormonal balance.
- Incorporate whole grains, dried fruits, nuts, and fatty fish as healthy snack options [6].

Calcium supplementation has demonstrated clinical benefit. Administration of 1,200 mg of calcium carbonate daily for three menstrual cycles improved symptoms in approximately 48% of women with PMS, compared to 30% improvement in placebo groups [17].

Physical Activity and Exercise

Regular physical activity contributes to hormonal regulation and psychological well-being. Research has consistently demonstrated that exercise reduces depressive symptoms and improves overall menstrual health [6].

Studies report that women who engage in regular exercise experience reductions in:

- Mood disturbances.

- Anxiety.
- Fatigue.
- Physical discomfort.

A cross-sectional study among Australian women aged 18–45 years found that combined lifestyle measures – including exercise, adequate hydration, and appropriate symptom management – resulted in symptom improvement in 85% of participants [6]. Similarly, Scully reported that regular physical activity significantly reduced psycho-emotional symptoms such as depression and anxiety [6].

Healthcare professionals recommend at least 30 minutes of moderate aerobic exercise daily, including walking, running, or cycling. Aerobic activity enhances cardiovascular function, improves sleep quality, increases endorphin release, and reduces fatigue and depressive symptoms [6].

Yoga and Mind–Body Interventions

Yoga and meditation serve as effective complementary strategies for managing PMS and PMDD. These practices integrate physical postures (asana), breath control (pranayama), and meditation (dhyana), promoting psychological resilience and emotional regulation [18].

Yoga enhances psychological, social, and spiritual well-being through mind–body integration. By combining controlled breathing, focused attention, and physical movement, yoga reduces stress, stabilizes mood, and improves overall quality of life. Several studies support its role as a safe and accessible adjunctive therapy for premenstrual symptom management [6, 18, 19].

Herbal Supplements

Chasteberry Extract (Vitex agnus-castus, VAC)

It is a widely studied herbal preparation used in the management of Premenstrual Syndrome (PMS) and Premenstrual Dysphoric Disorder (PMDD). The extract is derived from the dried ripe fruit of a plant native to the Mediterranean region and parts of Asia [18].

Its primary mechanism of action involves modulation of dopaminergic pathways. By enhancing dopaminergic activity, VAC may influence prolactin secretion and contribute to the regulation of mood-related and somatic symptoms. Clinical studies, including research by Cerqueira et al., report improvements in both physical and psychological symptoms among women with PMS and PMDD [14].

Due to its favorable safety profile and evidence from randomized controlled trials, VAC remains one of the most extensively researched herbal interventions for premenstrual disorders [18].

Omega-3 Fatty Acids

Omega-3 polyunsaturated fatty acids (PUFAs) play important roles in several biological processes, including regulation of inflammatory pathways, modulation of pain perception, and support of monoaminergic neurotransmission. These mechanisms contribute to their therapeutic potential in premenstrual symptom management [18].

Recent meta-analytic evidence from approximately eight randomized controlled trials demonstrates that omega-3 supplementation significantly reduces the severity of premenstrual symptoms. The benefits appear particularly pronounced in older reproductive-aged women [18].

Given their anti-inflammatory and neuroprotective properties, omega-3 fatty acids represent a promising adjunctive therapy for PMS and PMDD.

Pharmacological Therapy

Clinicians recommend pharmacological therapy when non-pharmacological interventions fail to provide adequate symptom relief. Physicians should monitor patients regularly, typically at three-month intervals, to assess treatment response, adherence, and potential adverse effects (Table 1).

Table 1. Studies on Non-Pharmacological Therapies.

S.N.	Authors	Study	Methodology	Intervention	Result	Ref. No.
1	Csupor D, Lantos T, Hegyi P, et al.	Meta-analysis of Randomized Controlled Trials (RCTs). Study area: Hungary Study population: 18–40 years female.	Selected 3 high-quality RCTs using well-characterized VAC preparations. Focused on standardized dosing and consistent outcome measures.	• Dosage: 8 mg, 20 mg, or 30 mg of VAC (Ze 440 extract). • Administration: Daily use (luteal phase or continuous). • 8 mg was not significantly better than placebo; 20 mg and 30 mg were effective.	• VAC users were 2.57× more likely to achieve remission than placebo. • Shown to be superior to placebo and as effective as some pharmacologic options.	[20]
2	Khayat et al.	Two Randomized Controlled Trials (RCTs) were conducted. Study area: Iran. Study population: 18–45 years of women.	Double-blind, placebo-controlled RCT.	Curcumin 100 mg capsules taken twice daily (200 mg/day total).	The 2015 Iranian RCT (Khayat et al.) reported that curcumin significantly attenuated the severity of PMS symptoms compared to placebo.	[21]
3.	Barnes PM, et al., Thys-Jacobs S, et al., Agha-Hosseini M, et al.	Meta-analyses, randomized trials. Study of area: Iran, Indonesia & Thailand. Study population: 18-45 years adult women.	• Vitamins (B6, B1, D), minerals (calcium, magnesium, zinc) tested in trials. • Herbal treatments (Vitex, saffron, chamomile, St. John's Wort) reviewed. • Omega-3 fatty acids examined for inflammation control.	• Vitex (8–41 mg daily) • Saffron (15 mg twice daily). • Vitamin B6 (50–100 mg daily). • Calcium (500–1200 mg daily). • Omega-3 (500–2000 mg daily).	• Vitex, saffron, and B6 showed significant improvement over placebo. • Calcium, magnesium, and omega-3 may help but need better study quality.	[22]

Pharmacological management targets specific symptoms or modulates hormonal fluctuations associated with Premenstrual Syndrome (PMS) and Premenstrual Dysphoric Disorder (PMDD). Treatment options include nonprescription preparations, psychotropic agents (e.g., SSRIs, SNRIs), diuretics, prostaglandin inhibitors, hormonal therapies.

The following table (Table 2) summarizes key pharmacological interventions, including study design, methodology, dosage, and reported outcomes [23].

Table 2. Studies on Pharmacological Therapies.

S.N.	Authors	Study	Methodology	Intervention	Result	Ref. No.
1.	Carlini et al., 2022	Randomized Controlled Trials (RCTs), Open-label trials, Systematic reviews. Study area: North America (United States of America and Canada) & Europe. Age of conduction: Adult women (18 & older women).	Studies reviewed included both continuous and intermittent (luteal-phase or symptom-onset) dosing strategies for SSRIs. Comparison of different SSRIs (sertraline, escitalopram, paroxetine, fluoxetine) in varied dosing schedules.	• Sertraline: 50–100 mg daily (Luteal phase). • Phase/Symptom-onset). • Escitalopram: 10–20 mg daily (Luteal phase/Symptom-onset). • Paroxetine: 10–20 mg daily (Luteal phase), 12.5–25 mg controlled-release (Luteal phase). • Fluoxetine: 10–20 mg daily (Luteal phase). • Venlafaxine (SNRI): 75–112.5 mg daily (Luteal phase).	Efficacy: Multiple RCTs confirm SSRIs as the gold standard for Premenstrual Dysphoric Disorder (PMDD) treatment. Side Effects: No significant withdrawal symptoms were noted in intermittent dosing strategies.	[8]

2.	Cohen et al., Ramos et al., Mazza et al.	Open-label trials, single-blind trials. Study area: United States of America & Europe. Age of conduction:18–45 years of adult women.	Venlafaxine tested in continuous dosing and luteal phase dosing. Duloxetine tested in continuous dosing.	• Venlafaxine: 75–112.5 mg daily (Luteal phase) • Duloxetine: Dosage varied per study.	• Venlafaxine: Effective in placebo non-responders. • Duloxetine: Demonstrated efficacy, but further studies needed.	[24]
3.	Yonkers et al., Marr et al., Pearlstein et al.	Randomized Controlled Trials. Study of area: United States of America & Europe. Age of conduction:18–40 years of women.	• Tested different hormonal combinations. • (Drospirenone+ Ethinyl Estradiol). • Compared 21/7 vs. 24/4 active/placebo schedules.	Drospirenone (3 mg) + Ethinyl Estradiol (20 µg or 30 µg) in various dosing schedules.	• Significant improvement in PMDD symptoms and functional impairment. • Best results after 3 months of use. • Drospirenone formulation was superior to desogestrel for PMS.	[25]
4.	Brown et al., Wyatt et al.	Randomized trials. Study of area: United States pf America & Canada. Age of Conduction: 25–45 years of women.	• Leuprolide (Lupron) injection tested for ovulatory suppression • Danazol, an anti-gonadotropic derivative, assessed for cycle suppression.	• Leuprolide: 3.75 mg intramuscular injection monthly. • Danazol: Dose varied per study.	• Effective in PMS/PMDD but induces menopausal side effects. • “Add-back” estrogen/progesterone therapy reduces side effects while maintaining efficacy.	[26]
5.	Harrison WM et al., Schmidt PJ et al., Nazari H et al.	Randomized trials, single-blind study. Study of area: United States of America & UK. Study of conduction: Above 18 years of women.	• Compared alprazolam (benzodiazepine) vs. placebo. • Buspirone vs. fluoxetine study for PMS.	• Compared alprazolam (benzodiazepine) vs. placebo. • Buspirone vs. fluoxetine study for PMS.	Alprazolam showed weak evidence of efficacy. Buspirone and fluoxetine both reduced symptoms, but lacked a placebo group for proper comparison.	[27]
6.	Jackson et al., Sani et al., Buneviciu s et al.	Small trials, case series. Study of area: North America, Europe & Asia. Study of conduction: 18–50 adult women.	• Quetiapine (25 mg SR) tested as adjunct to SSRIs/SNRIs. • Acetazolamide (low dose) assessed in a case series. • Clonidine (randomized study) evaluated but failed to show efficacy.	• Quetiapine SR: 25 mg for SSRI non-responders. • Acetazolamide: Low-dose regimen. • Clonidine: Standard dose.	• Quetiapine adjunct therapy improved mood in PMDD. • Clonidine had no significant effect.	[28]

CONCLUSION

Premenstrual depression represents a significant public health concern among women in India and worldwide. Symptoms typically emerge during the late luteal phase, approximately five days before the onset of menstruation, and resolve shortly after menstruation begins. Women experience these symptoms throughout their reproductive years.

Premenstrual disorders encompass both physiological and psychological manifestations. Common symptoms include irritability, depressed mood, stress, anxiety, impaired concentration, abdominal pain, breast tenderness, and fatigue. These recurrent symptoms substantially impair daily functioning and reduce overall quality of life.

The prevalence of Premenstrual Syndrome (PMS) and Premenstrual Dysphoric Disorder (PMDD) remains high across diverse populations. Given their significant psychological and occupational impact, early identification and structured management are essential. Increasing awareness, promoting accurate health education, and encouraging lifestyle modification – such as balanced nutrition, regular physical activity, and stress management – can improve symptom control and enhance well-being.

Limitations of the Study

This review has some limitations. First, the included studies primarily employed cross-sectional designs, which restrict the ability to establish causal relationships. Second, the literature predominantly focused on PMS and PMDD as diagnostic categories, limiting the availability of data on specific premenstrual depressive symptoms.

Additionally, few studies emphasized individualized or tailored intervention strategies to optimize patient outcomes. The limited number of India-specific publications reduces the generalizability of findings to the broader Indian population. Finally, reliance on self-reported data introduces the possibility of recall bias and complicates differentiation between premenstrual symptoms and other mood disorders due to overlapping clinical features.

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