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# Trupti Mayee Patel

India

Ph.D., Scholar, Malwanchal University, Indore, Madhya Pradesh, India

Dr. Thounaojam Bidyani Devi Research Supervisor, Malwanchal University, Indore, Madhya Pradesh,

# Non-pharmacological coping techniques in premenstrual syndrome among adolescent girls

# Trupti Mayee Patel and Thounaojam Bidyani Devi

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#### **Abstract**

**Background:** Premenstrual Syndrome (PMS) is a common condition affecting adolescent girls, characterized by a range of physical, emotional, and behavioral symptoms that significantly impact daily functioning and quality of life. Pharmacological treatments may not always be suitable for this population due to side effects or reluctance to use medication.

**Objective:** This article aims to explore non-pharmacological coping strategies that can be effectively used by adolescent girls to manage PMS symptoms, with a focus on lifestyle modifications, dietary interventions, physical activity, psychological approaches, and alternative therapies.

**Methods:** A narrative review of existing literature was conducted using electronic databases including PubMed, Google Scholar, and Scopus. Studies focusing on non-pharmacological interventions for PMS in adolescents were included.

**Results:** Evidence suggests that regular physical activity, dietary modifications, stress reduction techniques such as yoga and meditation, and cognitive-behavioral therapy are effective in reducing the severity of PMS symptoms. Educational and peer-support programs also play a vital role in improving awareness and coping capacity.

**Conclusion:** Non-pharmacological techniques provide adolescent girls with accessible, sustainable, and side-effect-free strategies for managing PMS. School-based health education and community support systems should be strengthened to promote these approaches.

**Keywords:** Premenstrual syndrome, adolescents, non-pharmacological techniques, coping strategies, lifestyle modifications

#### Introduction

Premenstrual Syndrome (PMS) encompasses a constellation of physical, emotional, and behavioral symptoms that occur cyclically in the luteal phase of the menstrual cycle and resolve with the onset of menstruation. Adolescents, due to hormonal fluctuations and psychosocial transitions, are particularly vulnerable to PMS, which may lead to school absenteeism, academic underperformance, and emotional distress (Rapkin & Winer, 2009) <sup>[5]</sup>. While pharmacological treatments such as hormonal therapy and analgesics are commonly prescribed, non-pharmacological interventions offer holistic and sustainable options without the risk of side effects. This article discusses the most effective non-pharmacological techniques adolescent girls can adopt to cope with PMS.

# **Understanding PMS in Adolescents**

The prevalence of PMS among adolescent girls in India is estimated to be between 40% to 70% (Chaturvedi & Chandra, 2009) [1]. Symptoms range from abdominal cramps, bloating, and headaches to mood swings, irritability, and depression. Factors contributing to PMS include hormonal imbalance, poor nutrition, lack of physical activity, and psychosocial stressors. Adolescents often underreport PMS due to stigma or lack of awareness, leading to poor coping strategies and reliance on self-medication.

# **Non-Pharmacological Coping Techniques**

#### 1. Lifestyle Modifications

• **Sleep Hygiene:** Regular and adequate sleep has been associated with lower severity of PMS symptoms. Adolescents should be encouraged to maintain a consistent sleep schedule and avoid excessive screen time before bed.

Corresponding Author: Trupti Mayee Patel Ph.D., Scholar, Malwanchal University, Indore, Madhya Pradesh, India ■ **Time Management:** Structured routines and balanced workloads can help reduce stress, which is known to exacerbate PMS symptoms.

# 2. Dietary Interventions

- Calcium and Magnesium: Studies show that supplementation with calcium (1000-1200 mg/day) and magnesium (200-400 mg/day) significantly reduces PMS symptoms like bloating, fatigue, and mood swings (Thys-Jacobs, 2000) [6].
- **Complex Carbohydrates:** Whole grains and legumes help in serotonin regulation and mood stabilization.
- Avoidance of Caffeine and Salt: Limiting intake can reduce bloating and breast tenderness.

#### 3. Physical Activity

Regular aerobic exercise such as walking, jogging, and dancing enhances endorphin production, reduces stress, and alleviates PMS symptoms. A study by Daley (2008) [2] found that aerobic exercise performed for 30 minutes, 3-5 times a week, significantly reduced both physical and psychological PMS symptoms.

## 4. Yoga and Meditation

Yoga incorporates physical postures, breathing exercises, and relaxation techniques which have been found effective in reducing the severity of PMS symptoms (Rakhshaee, 2011) [4]. Mindfulness meditation and guided imagery help adolescents develop emotional regulation skills.

#### 5. Cognitive-Behavioral Therapy (CBT)

CBT has shown promise in managing PMS by altering negative thought patterns and behaviors. It helps adolescents develop better coping mechanisms, improve mood, and reduce anxiety associated with PMS (Hunter *et al.*, 2002) [3].

# 6. Herbal and Alternative Therapies

- Chasteberry (Vitex agnus-castus): Commonly used for hormonal regulation.
- Evening Primrose Oil: Found to reduce breast pain and mood changes.
- **Aromatherapy and Acupressure:** Though evidence is limited, these are gaining popularity as supportive therapies among adolescents.

# **Role of Education and Peer Support**

Awareness and education programs in schools can significantly improve adolescents' understanding of PMS and available coping strategies. Peer groups and female counselors can offer safe spaces for discussion, emotional support, and knowledge exchange. Integrating menstrual health education into the curriculum is essential for destignatization and empowerment.

#### **Challenges and Limitations**

- Lack of Awareness: Many adolescents are unaware of PMS or perceive it as a normal part of menstruation.
- **Cultural Taboos:** Discussions around menstruation are still considered taboo in several communities.
- Access to Resources: Not all schools or communities have the infrastructure to support regular exercise, yoga classes, or counseling services.
- Limited Research in Indian Context: There is a need

for more region-specific studies focusing on adolescents in both urban and rural settings.

#### Conclusion

Non-pharmacological coping strategies are vital for empowering adolescent girls to manage PMS effectively. These techniques not only address physical symptoms but also enhance emotional resilience and self-care. Multi-disciplinary interventions involving schools, families, and healthcare providers are essential for promoting menstrual health and overall well-being in adolescents.

#### **Conflict of Interest**

Not available

#### **Financial Support**

Not available

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# **How to Cite This Article**

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