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THE IMPACT OF LIFESTYLE AND DIETARY MODIFICATIONS AND SUPPLEMENTATION ON THE MANAGEMENT OF PREMENSTRUAL SYNDROME

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Relevance. Premenstrual Syndrome (PMS) is a common gynecological condition affecting women of reproductive age and is characterized by physical, psychological, and behavioral symptoms that occur during the luteal phase of the menstrual cycle and resolve after menstruation begins. Typical symptoms include irritability, anxiety, mood swings, fatigue, headaches, and abdominal bloating. These symptoms can significantly affect quality of life, interpersonal relationships, and work productivity. Because pharmacological treatments may produce adverse effects, increasing attention has been directed toward non pharmacological management strategies such as lifestyle modification, dietary changes, and nutritional supplementation. Nutritional factors have been suggested to influence hormonal balance, neurotransmitter activity, and inflammatory processes that contribute to PMS symptoms.

Aim: to evaluate the impact of lifestyle and dietary modifications and nutritional supplementation on the management of Premenstrual Syndrome among women of reproductive age.

Materials and methods. This study is based on a review of randomized controlled trials and systematic reviews investigating dietary and nutritional interventions for PMS. The analyzed research primarily covered studies published between 2013 and 2024, focusing on women of reproductive age diagnosed with PMS who received dietary interventions or nutritional supplementation for at least two menstrual cycles. Data regarding intervention type, duration, and symptom assessment tools were examined. PMS severity and improvement were commonly measured using validated assessment tools such as the Premenstrual Symptoms Screening Tool (PSST) and the Daily Record of Severity of Problems (DRSP).

Results and their discussion. A systematic review including 22 randomized controlled trials reported that most studies observed a reduction in PMS symptom scores following dietary modification or supplementation. A meta analysis of 15 randomized controlled trials involving 1211 participants showed a significant reduction in overall PMS symptom scores among individuals receiving herbal or nutritional supplementation compared with control groups. Clinical trials evaluating micronutrient supplementation found that vitamin B6, calcium, and zinc significantly improved psychological symptoms such as irritability, anxiety, and depressive mood in women experiencing PMS. In one zinc supplementation trial, participants receiving 30 mg of zinc for 12 weeks demonstrated a measurable reduction in both physical and psychological PMS symptoms when compared with the placebo group. Dietary patterns characterized by higher consumption of fruits, vegetables, legumes, and whole grains were associated with lower severity of PMS symptoms compared with diets high in processed foods and refined sugars. A meta analysis of seven randomized controlled trials confirmed the overall benefits of physical activity for PMS. In one comparative study of 106 young women, both diet modification and aerobic exercise for three months significantly reduced PMS symptoms and dysmenorrhea intensity.

Conclusions. Lifestyle changes, dietary modifications, and targeted nutritional supplements appear beneficial for managing Premenstrual Syndrome. Evidence from trials shows micronutrient supplementation and healthier diets reduce psychological and physical PMS symptoms, improving wellbeing. However, further large-scale, well-designed studies are needed to establish standardized guidelines and confirm long-term effectiveness.