Abstract

Polycystic Ovary Syndrome (PCOS) is a prevalent endocrine disorder affecting 6–13% of women of reproductive age, with up to 70% remaining undiagnosed. Characterized by irregular menstruation, excess androgen levels, and polycystic ovaries, PCOS can lead to infertility and increase the risk of long-term health issues such as type 2 diabetes and high cholesterol. While the exact cause remains unclear, abnormal hormone levels are implicated. Symptoms include irregular or absent periods, excessive hair growth, weight gain, thinning hair, oily skin, and acne. Although there is no cure, management strategies include dietary changes, lifestyle modifications, medications, and fertility treatments.

This study in Thrissur, Kerala, addressed PCOS under diagnosis among college women aged 18–21 by evaluating nutrition intervention programs. Researcher screened 1,250 students using the Rotterdam Criteria, identifying 25 per cent with PCOS symptoms. Data collection covered anthropometric, biochemical, and clinical assessments, as well as dietary, water intake, stress, menstrual hygiene, and nutritional knowledge. A specially formulated health mix powder was evaluated for its nutritional and sensory qualities. In the intervention phase, 120 PCOS subjects were divided into four groups, receiving varying combinations of nutrition education, exercise, and health mix supplementation, with a focus on stress management and healthy lifestyle practices.

Lifestyle assessments in the study revealed that although most participants had adequate sleep, 77 per cent did not engage in regular physical activity, and many relied on external food sources, often consuming high-fat, high-sugar diets. Among the participants, 30 per cent were underweight, 59 per cent had a normal BMI, and 11 per cent were overweight or obese. Dietary patterns showed a preference for non-vegetarian diets, frequent meal skipping, and high sugar intake, with three main dietary patterns identified: high-fat and sugar-rich, vegetable-centric, and cereal and pulse-based. Risk assessment indicated that 61 per cent of subjects were in the low-risk category for PCOS, 17 per cent were moderate risk, and less than 1 per cent were high risk, with similar trends for hirsutism scores. The study underscored the need for dietary modifications and increased physical activity to manage PCOS risk factors. Nutrition intervention programs showed positive effects on nutritional status, knowledge, and PCOS symptom management, highlighting the value of tailored interventions for young women.