

**ORIGINAL ARTICLE****Association of PCOS with diet in females of reproductive system**Saima Chattha<sup>1</sup>, Noor Ul Sabah Babar<sup>2</sup>, Sarah Sherazi<sup>3</sup>**Affiliations**

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**Abstract**

**Objectives:** To examine dietary habits in women diagnosed with PCOS and their possible links between specific diet patterns and PCOS

**Methodology:** A Cross-sectional study conducted in outpatient and gynecology departments of Chattha Hospital, Commissioner Road, Sialkot females aged 15–45 years visited from January to December 2025. Data was analyzed using SPSS. Permission from Ethics Committee was obtained.

**Results:** Out of 100 participants, 62% were found to consume, unhealthy diets, while 38% reported relatively healthy, dietary practices. High intake of refined carbohydrates, (70%), fast food (60%), and sugary drinks (55%) were prominent among patients. In contrast, only 30%, consumed adequate fruits and vegetables, and 25% consumed whole grains regularly.

**Conclusion:** This study concludes that dietary habits significantly influence the frequency and severity of PCOS in reproductive-age females. Unhealthy diets aggravate the syndrome, whereas healthy dietary patterns offer protective benefits.

**Keywords:** PCOS, SPSS, dietary, Carbohydrates, sugary drinks

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**Author contribution:**

SC, NSB and SS; conceptualization of project, data collection, writing manuscript, statistical analysis, drafting, revision and final approval.

**Introduction**

Polycystic Ovary Syndrome (PCOS) is a common endocrine disorder among women of reproductive age, affecting around 6–20% depending on the diagnostic criteria used<sup>1</sup>. It is usually associated with symptoms like irregular periods, excess androgen levels, and polycystic ovaries. In recent years, diet has been identified as a modifiable factor that may influence the onset and severity of PCOS. Research shows that insulin resistance and high insulin levels, which are often seen in PCOS, are closely linked to dietary patterns.

Studies show that Western-style diets, which are high in refined sugars and trans fats, may worsen PCOS symptoms by increasing

insulin resistance and inflammation<sup>2</sup>. On the other hand, Mediterranean diets—rich in whole grains, lean proteins, and healthy fats—are linked with better insulin response and hormonal balance in PCOS patients. However, most of this research comes from Western populations. There is limited data on how typical South Asian diets, which are generally high in carbohydrates and oils, affect PCOS.

**Objectives:** To examine dietary habits in women diagnosed with PCOS and their possible links between specific diet patterns and PCOS with reference to BMI.

- **Methodology**

Operational Definitions

**PCOS:** Diagnosis using the Rotterdam Criteria, which require at least two of the following: (1) irregular or absent ovulation, (2) signs of high androgen levels (clinical or lab-based), and (3) polycystic ovaries seen on ultrasound (Rotterdam ESHRE/ASRM, 2004)<sup>4</sup>.

**Diet:** Assessed through a structured Food Frequency Questionnaire and 24-hour dietary recall.

**Reproductive age:** Females aged 15 to 45 years.

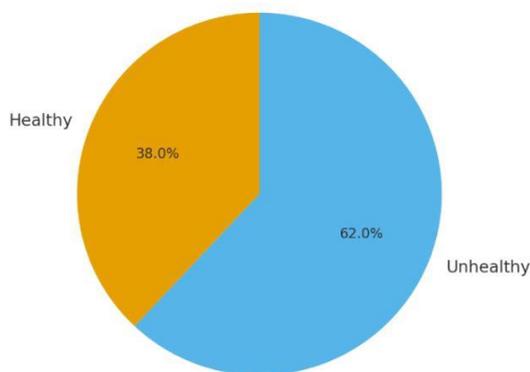
Participants completed the questionnaires about their diet and PCOS symptoms. PCOS diagnosis was confirmed using available medical records and ultrasound reports according to written down criteria.

A Cross-sectional study conducted in outpatient and gynecology departments of Chattha Hospital, Commissioner Road, Sialkot females aged 15–45 years visited from January to December 2025. Data was analyzed using SPSS. Permission from Ethics Committee was obtained.

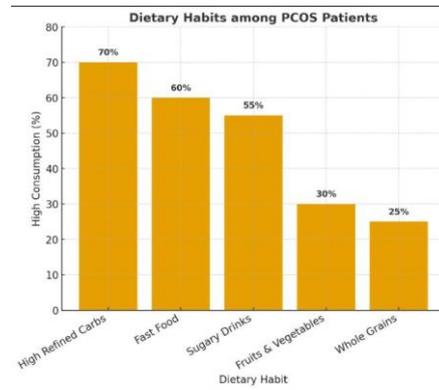
**Results**

We found that 62% of the participants used intolerant un-healthy diet.

Dietary Patterns among PCOS Patients (n=100)



**Figure 1:** Pie chart showing 62% healthy and 38% unhealthy diet.



**Figure 2:** Distribution of dietary habits in PCOS patients

Dietary habit.	High consumption (%)
High refined carbs	70 %
Fast food	60%
Sugar drinks	55%
Fruits and vegetables	30%
Whole grains	25%

**Table 1:** Dietary habits in PCOS patients

**Discussion**

Frequent consumption of high-glycemic foods such as refined carbohydrates, sugary drinks, and fast food contributes to insulin resistance, which is a key driver of PCOS pathogenesis<sup>4</sup>. Conversely, diets rich in fruits, vegetables, and whole grains enhance insulin sensitivity and may reduce the severity of PCOS symptoms<sup>5</sup>. Our findings are consistent with international literature highlighting the significance of diet in PCOS management. Interventions targeting nutrition and lifestyle not only improve reproductive outcomes but also reduce long-term risks such as type 2 diabetes and cardiovascular diseases<sup>6</sup>.

**Conclusion**

This study concludes that dietary habits significantly influence the frequency and severity of PCOS in reproductive-age females. Unhealthy diets aggravate the syndrome, whereas healthy dietary patterns offer protective benefits.

**Recommendations**

Integrating dietary counseling into gynecological care and promoting lifestyle interventions could serve as sustainable, cost-effective strategies for PCOS management. Future research with larger cohorts and longitudinal designs is needed to establish causal relationships and develop standardized dietary guidelines for PCOS patients.

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**Conflict of Interest:** None

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