

8th Annual Congress on Polycystic Ovarian Syndrome and Fertility

June 12-13, 2025 | London, UK (Hybrid Event)

ORAL PRESENTATION

Insulin resistance and prediabetes in women with PCOS: A cross-sectional study from Pakistan**Sania Bashir**

CEO and Founder of Diabetes Telecare, Pakistan

Background: Polycystic Ovary Syndrome (PCOS) is a prevalent endocrine disorder among women of reproductive age and is closely linked with insulin resistance (IR) and an elevated risk of Type 2 Diabetes Mellitus (T2DM). Women in Pakistan may exhibit early metabolic disturbances, increasing their vulnerability to prediabetes and diabetes.

Objective: To assess the prevalence of insulin resistance, impaired glucose tolerance, and prediabetes in women with PCOS, and to identify associated risk factors in a clinical population from Pakistan.

Methods: A cross-sectional observational study was conducted at Diabetes TeleCare centers in urban areas of Pakistan between January and October 2024. A total of 312 women aged 18–40 years with a confirmed diagnosis of PCOS (based on Rotterdam criteria) were enrolled. Fasting glucose, 2-hour OGTT, HbA1c, insulin levels, and HOMA-IR were measured. Anthropometric data and lifestyle history were collected via structured interviews.

Results:

- Prevalence of IR (HOMA-IR >2.5): 62%
- Prediabetes (HbA1c 5.7–6.4%): 41%
- Newly diagnosed T2DM (HbA1c ≥6.5%): 14%

- Central obesity, sedentary lifestyle, and family history of diabetes were significantly associated with IR and prediabetes ($p < 0.01$).

Notably, even women with normal BMI but high waist circumference showed elevated HOMA-IR scores.

Conclusion: A substantial number of women with PCOS in Pakistan show early metabolic dysfunction, particularly insulin resistance and prediabetes. Early screening and targeted interventions in this high-risk group are essential to curb the rising burden of T2DM in the country.

Biography

Dr. Sania Bashir is a distinguished Consultant Diabetologist and the CEO & Founder of Diabetes TeleCare (Pvt.) Ltd, Pakistan's first dedicated digital platform for diabetes management. A distinction-holder alumnus of Cardiff University, UK, she specializes in telemedicine, digital health innovation, and diabetes education. With over four years of pioneering work, Dr. Bashir has led nationwide outreach through her mobile app, YouTube channel, and professional training programs. Her work focuses on patient-centred digital care, remote monitoring, and empowering healthcare professionals through structured online courses. Under her leadership, Diabetes TeleCare has served over 5,000 patients and achieved a 65% improvement in HbA1c outcomes.

Received Date: May 14, 2025; Accepted Date: May 16, 2025; Published Date: July 31, 2025