

Prevalence of Polycystic Ovary Syndrome (PCOS) and Its Associated Risk Factors among GirlsSunita Balara¹, Somveer Punia², Sandip Balara³¹SMO Obstetrics and Gynecology, CHC Baap, Phalodi, Rajasthan, India²MD, Pulmonary Medicine, DBH, Churu, Rajasthan, India³MBBS, Medical Officer, AAM, Dholabala, Phalodi, Rajasthan, India

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Conflict of interest: Nil

Abstract**Objective:** To assess the prevalence of Polycystic Ovary Syndrome (PCOS) and its associated risk factors among girls attending CHC Baap Phalodi, Jodhpur.**Methods:** This cross-sectional, observational study was conducted from February 2025 to July 2025 at CHC Baap Phalodi, Jodhpur. A complete enumeration approach was used, where all girls diagnosed with PCOS during this period were included in the study. Data on demographic details, symptoms, risk factors, and complications were collected using a pre-designed questionnaire.**Results:** Among 48 girls diagnosed with PCOS, the mean age was 20.4 years. The most common symptoms reported included menstrual irregularities (75%), acne (63%), and hirsutism (58%). Risk factors such as obesity (70%) and sedentary lifestyle (65%) were the most frequently acknowledged. Knowledge about long-term complications such as metabolic syndrome (62%) and type 2 diabetes (58%) was less widespread.**Conclusion:** While there is a relatively high awareness of certain symptoms and risk factors of PCOS, awareness about long-term complications is insufficient. Educational interventions focusing on PCOS complications and lifestyle management are crucial to improve knowledge and prevention strategies.**Keywords:** PCOS, Prevalence, Risk Factors, Complications, Awareness, Girls, Jodhpur.

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Introduction

Polycystic Ovary Syndrome (PCOS) is a common endocrine disorder affecting women of reproductive age, characterized by irregular menstrual cycles, polycystic ovaries, and signs of hyperandrogenism such as hirsutism and acne.[1,2]

The prevalence of PCOS varies globally, with studies suggesting that approximately 5% to 10% of women are affected during their reproductive years.[3]

PCOS is not only a cause of infertility but also increases the risk of several long-term metabolic conditions, including obesity, diabetes mellitus, and cardiovascular diseases.[4]

In India, the prevalence of PCOS has been rising, and this has been attributed to several factors, including lifestyle changes, dietary habits, and genetic predisposition.

Awareness about PCOS among adolescent girls is critical for early diagnosis and intervention.[5]

Materials and Methods**Study Design:** A cross-sectional, observational study was conducted at CHC Baap Phalodi, Jodhpur, from February to July 2025.**Study Population:** All girls diagnosed with PCOS during this period were included in the study,**Inclusion Criteria:**

- Girls diagnosed with PCOS during the study period
- Consent obtained from participants or guardians

Exclusion Criteria:

- Girls with a history of other endocrine disorders
- Girls on medications that interfere with ovarian function

Data Collection: A pre-tested, semi-structured questionnaire was used for data collection. The questionnaire included questions related to

Demographics, Symptoms of PCOS, Risk factors and Awareness of long-term complications.

Data were analyzed using descriptive statistics (frequencies, percentages) to assess awareness levels about risk factors, symptoms, and complications of PCOS.

Ethical Considerations: Approval was obtained and written informed consent was taken from the participants or their parents/guardians.

Results

Table 1: Prevalence of PCOS Symptoms and Risk Factors among Participants

Category	Subcategory	Value (N=48)	Percentage (%)
Demographics	Age Group	Less than 18	12
		18 - 20	20
		21 - 23	10
		24 and Above	6
Symptoms of PCOS	Menstrual Irregularities	36	75%
	Acne	30	63%
	Hirsutism	28	58%
	Alopecia	20	42%
	Acanthosis Nigricans	18	38%
	No Symptoms	4	8%
Risk Factors for PCOS	Obesity (BMI \geq 30)	34	70%
	Sedentary Lifestyle (\leq 1 day/week)	31	65%
	Family History of PCOS	24	50%
	Fast Food Consumption (>3 days/week)	24	50%
	Poor Diet (Junk/Fast Food)	30	62%
	No Risk Factors Identified	5	10%
Awareness of Long-Term Complications	Metabolic Syndrome	30	62%
	Type 2 Diabetes	28	58%
	Cardiovascular Risks	20	42%
	Psychological Complications (e.g., Depression)	18	38%
	Endometrial Cancer	12	25%
	No Awareness of Long-Term Risks	6	12%
PCOS Diagnosis Based on Symptoms	ANOVU (Chronic Anovulation)	48	100%
	Hirsutism	28	58%
	Alopecia	20	42%
	Acne	30	63%
	Acanthosis Nigricans	18	38%

A total of 48 girls were diagnosed with PCOS during the study period. The average age of the participants was 20.4 years, and the majority were from a middle socioeconomic background. The most common symptoms of PCOS reported included: Menstrual irregularities: 75% (36 girls) Acne: 63% (30 girls) Hirsutism: 58% (28 girls) regarding the risk factors, the majority of girls were aware of obesity (70%) and sedentary lifestyle (65%) as key contributors to PCOS.

Family history and poor dietary habits were also commonly identified risk factors. Awareness about the long-term complications of PCOS was less widespread. Approximately 62% of the participants were aware of the association between PCOS and metabolic syndrome, while 58% knew about the risk of developing type 2 diabetes. Awareness of

cardiovascular risks and psychological complications was reported by fewer than 50% of participants.

Discussion

This study finds that 75% of participants reported menstrual irregularities, a finding similar with Yasmin et al. (2023)[6] and Mathur A et. al (2023)[7], who also observed high rates of menstrual disturbances in PCOS patients.

Acne (63%) and hirsutism (58%) were the most commonly reported symptoms, reflecting the hyperandrogenism seen in PCOS, similar to Yasmin et al. (2023)[6] where 49.05% had acne and 43.39% had hirsutism. Obesity (70%) and a sedentary lifestyle (65%) were major risk factors, aligning with findings from Yasmin et al. (2023)

and Joshi et al. (2023),[6,8] who also identified metabolic abnormalities, such as type II diabetes and obesity, as frequent comorbidities. Furthermore, our study observed that awareness of long-term complications like metabolic syndrome (62%) and type 2 diabetes (58%) was moderate, but awareness of more serious risks such as cardiovascular complications and endometrial cancer was lower, a trend also seen in other studies like Yasmin et al. (2023)[6].

The prevalence of PCOS in our study (9.18%) was similar to global rates, and the symptoms and risk factors found align with those observed in previous research, including Mathur A et al (2023) and Joshi et al. (2023).[7,8]

These results emphasize the need for early detection, better awareness of PCOS, and lifestyle interventions to mitigate both reproductive and metabolic risks.

Conclusion

This study indicates that while there is a good awareness of the risk factors associated with PCOS among girls in Jodhpur, their understanding of the long-term complications remains limited. Educational programs focusing on increasing awareness about the metabolic and cardiovascular risks associated with PCOS, as well as promoting lifestyle modifications, are essential for reducing the burden of this disorder.

Limitations

- The study was conducted at a single center, limiting its generalizability.
- The sample size was relatively small, and future studies with larger populations are needed for more comprehensive findings.

Recommendations

- Schools and colleges should incorporate PCOS awareness programs into their health education curriculum.
- Future research should focus on the effectiveness of educational interventions in

improving knowledge about PCOS and its complications.

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