

Polycystic Ovarian Syndrome in Kashmir

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Abstract

Polycystic Ovary Syndrome (PCOS) is notably prevalent among women in the Kashmir region of India, with studies indicating significantly higher rate than the national average. As per the Indian Council of Medical Research (ICMR), over 30 % of Kashmiri women meet the Rotterdam criteria for PCOS diagnosis. Factors contributing to the high prevalence include sedentary lifestyles, poor dietary habits and the hormonal imbalance, which has led to chronic stress and psychological problems. Research highlights a strong link between PCOS and Psychiatric disorders such as anxiety, depression and bipolar disorder. The syndrome is also associated with metabolic disorders. There is need of proper counseling and awareness and healthy life style in order to prevent this problem.

Keywords: PCOS, Women, Lifestyle, Psychological, Kashmir

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Introduction

PCOS is increasingly affecting women in Kashmir, leading to significant physical and emotional challenges. As a traditionally conservative society, Kashmir's strong social and cultural norms influence various aspects of life, including health outcomes. Recent studies on PCOS in the region highlight how these societal factors impact women's health. Given the wide range of symptoms associated with PCOS, it can affect a woman's reproductive, psychological, and overall well-being. To understand the extent and vulnerability of women with PCOS in Kashmir, it is essential to compare local data with national and global trends. As per the data revealed by the World Health Organization, dated 28th of June 2023, an estimated 8–13% of reproductive-aged women are affected by PCOS globally, and up to 70% of affected women remain undiagnosed worldwide. The latter statistics unambiguously highlight how unaware people in general and women, in particular, are when it comes to PCOS. Prevalence studies suggest that 1 in 5 young Indian women suffer from PCOS, which is around 20%. Similarly, according to a study conducted by “**PCOS Society**”, 1 in every 10 women in India has PCOS, and out of these 10 women, 6 are teenage girls. These are very alarming numbers and India is considered as one of the most affected countries regionally as well as globally, as far as PCOS is concerned. One of the reasons for such a hiked number of PCOS cases is the fact that India is considered the “Diabetes Capital of the World” due to its very high number of diabetic cases, as PCOS and insulin share a symbiotic relationship with each other. Deductively approaching the statistical denomination of cases related to PCOS in Kashmir, the numbers are not unfortunately promising enough. As per the Indian Council of Medical Research (ICMR) national task force, the prevalence of Polycystic Ovary Syndrome (PCOS) among Kashmiri women is above 30% by Rotterdam Criteria, which probably is the highest percentage globally. There are numerous criteria used to diagnose PCOS however, only a handful of them are standardized and mentioned here in this report. As per the **Rotterdam Criteria**, out of the three, “anovulation,” “hyperandrogenism,” or “polycystic ovaries,” two must be present on ultrasound of the woman with PCOS. Furthermore, the prevalence of PCOS among Kashmiri women is rated as **28.9%** by the **National Institute of Health (NIH) Criteria**, which is another criterion used erstwhile to diagnose PCOS in women. NIH Criterion is based on “hyperandrogenism” and “chronic anovulation” or on Sonographic findings of polycystic ovaries in women. The statistics of Kashmiri women with PCOS jump a bit to **34.3%** when **Androgen Excess (AE)-PCOS** Criteria is used, which is based on the presence of hyperandrogenism, Ovarian dysfunction, and the exclusion of

related disorders in women with PCOS. Last but not least is the **World Health Organization (WHO) Criteria** which is based on the presence of at least **two out of the following**:

- Signs or symptoms of high androgens (such as unwanted facial or bodily hair, hair loss from the head, or acne).
- Irregular or absent menstrual periods (after excluding other causes).
- Polycystic ovary morphology (detected through imaging) (WHO, 2023).

The major trigger factor for the emergence of Polycystic Ovary Syndrome (PCOS) is the poor lifestyle and unhealthy dietary habits among young females in Kashmir. The main reason behind this is the sedentary lifestyle among females and the increased consumption of junk food (mentioned by Dr. Rizwana Habib, a leading gynecologist in Kashmir, *Rising Kashmir*, 2021). Most of the adolescent females in Kashmir who visit a gynecologist are diagnosed with multiple cysts in their ovaries. Later, the condition can lead to Polycystic Ovary Syndrome (PCOS) in them if they do not follow a healthy lifestyle and proper treatment. The hormonal imbalance following the emergence of PCOS can further lead to obesity, metabolic disorders, hypertension, diabetes, and other complications among women. Lifelong ailments can also emerge among the females with PCOS if the underlying pathophysiology like pre-diabetes or pre-hypertension is neglected (Habib, 2021).

In another relevant study titled “**Prevalence of polycystic ovary syndrome (PCOS) among reproductive-age women from Kashmir valley,**” it is revealed that **35.3 %** of the selected females for the study were diagnosed with PCOS. Out of a total of 3300 eligible women, 964 women were evaluated in this study. Among these, 446 (46.4%) were identified as probable PCOS cases. Out of 171 probable PCOS women who completed all biochemical, hormonal, and sonographic assessments, **35.3%** qualified for a diagnosis of PCOS (Study conducted by the Department of Endocrinology, SKIMS, headed by Professor Ashraf Ganai, data taken from a local daily newspaper i.e. *Rising Kashmir*, 2021). Similarly, another research conducted by the Biochemistry Department of the University of Kashmir found that uncontrolled or untreated PCOS can raise the risk of infertility and other ailments like diabetes, heart disease. Two latest studies by doctors at Government Medical College (GMC) Srinagar have revealed a link between psychiatric symptoms and poly-cystic ovarian syndrome (PCOS). The studies are being seen as a valuable addition to existing literature regarding association of PCOS with psychiatric issues of women in Kashmir and could change the way doctors look at PCOS and mood disorders. The studies, designed primarily

by Government Medical College's Psychiatry department, titled '**Poly-cystic Ovary Syndrome in bipolar affective disorder: A Hospital based study**' and '**Prevalence of psychiatric disorders in patients with diagnosis of polycystic ovarian syndrome in Kashmir,**' have established a strong link between mood-disorders and PCOS. While talking about the work, Dr Sabreena Qadri, (report published in daily new paper i.e. Greater Kashmir, 2019) consultant and lead researcher of the hospital-based study said, PCOS and mood & anxiety disorders are showing an increasing trend in urban young women with dual diagnosis. The study found that **23%** of patients with bipolar mood disorders had PCOS. For a very long period of time Kashmiri doctors have been looking at psychiatric illnesses and PCOS separately. "We have been believing that because of the psycho-social impact of PCOS such as lowered self-esteem, infertility and others, there is a psychiatric effect of PCOS," Dr Sabreena said adding there was a greater association between the two than was being currently taken into account (report published in daily new paper i.e. Greater Kashmir, 2019). The second study carried out by the department has shown that **23%** of PCOS patients had major depressive disorders as compared to just **7.5%** of those women who did not have PCOS. Over **15%** of PCOS affected women had panic orders, three times more than women not affected by it. The other disorders also showed similar pattern. The study, published in Psychological Medicine in 2015, recommended screening and appropriate measures for psychiatric disorders as part of PCOS management. "The PCOS, if unmanaged, has devastating effect on the lives and well-being of women and must not be ignored by practitioners as a cosmetic issue," said Dr Sabreena of GMC's department of psychiatry, who was part of these studies (report published in daily new paper i.e. Greater Kashmir, 2019). She urged doctors to employ multi-dimensional approach in treating patients diagnosed with PCOS or mood disorders. "Lifestyle changes form the basis of PCOS management but we have evidence now that doctors need to look beyond the metabolic syndrome when evaluating such patients," she said, adding most of the young women she studied were "erroneously" being diagnosed with borderline personality disorders, anxiety disorders, bipolar disorders and major depressive disorders to "fit them into current diagnostic systems". "We found that mood anxiety symptoms are very common in PCOS patient. Many a time the psychiatric symptoms predate the PCOS diagnosis and even signs and symptoms. Thus, the researcher asserted, "the association cannot be explained on basis of psychological burden or chance alone. The pattern seems to be very similar and variations seem to be in severity only.

In view of the studies, the Department of Psychiatry has proposed a new term - Mood Anxiety Complex of Polycystic Ovary Syndrome (MAC-PCOS). "It is a distinct disorder, and although it shares features with all the mentioned psychiatric disorders, it has a greater association with PCOS" (report published in daily newspaper, Greater Kashmir, 2019). Aakriti, a postgraduate resident at the Institute of Mental Health and Neuro Sciences (IMHANS), has been invited to present the findings and association at the Royal College of Psychiatry. The aim of the studies and proposal was to recognize the common etiology of the epidemic of mood anxiety disorders and PCOS affecting females. *"If we could address the common factors that seem to have some link with both the disorders such as urban and sedentary lifestyle, reduced outdoor activities in childhood, changing eating patterns, loneliness and others, we could perhaps make some positive difference,"*. Dr Ashraf Ganai, professor of endocrinology at SKIMS and a noted researcher on PCOS, said that in Kashmir, the presentation of PCOS was different than in metros like Delhi, although prevalence was similar (Greater Kashmir, 2019). In Kashmir, obesity with PCOS is not as common as in Delhi. But we have girls who have more severe cosmetic effects such as hirsutism here," he said. Apart from its cosmetic effects, women with PCOS have a higher risk of developing type-2 diabetes mellitus and cardiovascular diseases and have impaired glucose tolerance (Ganai, 2019).

The aforementioned study conducted by Bashir et al. at one of the renowned tertiary hospitals in the district Srinagar of Kashmir, involving almost 50 women with PCOS, has revealed a series of psychological issues women with PCOS experience in Kashmir. As per the study, **8%** of the participants experienced mood swings. Similarly, worry and stress are indicated by **6%** and **14%** of participants. **22%** underscoring the detrimental effects on sleep patterns. **6%** of participants are feeling irritated, **12%** feel low in self-esteem and **4%** are feeling frustrated. In addition, 6% of participants feel overwhelmed. **8%** of participants are feeling uninterested in life's pursuits. In addition, 14% of participants express dissatisfaction with their bodies. The study under consideration also reported that due to menstrual irregularity, most of the participants would complain about remaining in a very bad mood and feel very anxious often, if not all the time. They would feel mentally stressed and irritated, which would eventually affect their overall existence primarily in the form of their distorted behaviors. All the people who observe the participants from outside and even stereotypically brand them as obese and masculine (due to their abundant body and facial hair) know nothing or very little about the cause and nature of the pathology. All the participants would feel

overwhelmed by the encumbrance they carry for no or little fault of their own. Two extracts from the study (Bashir et al.,) unambiguously highlight the psychological plight of the women with PCOS in Kashmir as follows:

1. *“The growth of hair on the face, chest, and around the neck because of PCOS has made our lives stressful. The problem is more serious for women who are unmarried. We are not getting how to express our feelings.”*
2. *“We used to wear medium-sized clothes, but now, due to an increase in weight, we have to wear large-size clothes. We cannot wear the clothes we used to. This PCOS has increased our weight. Taking medicine is a hope that our problem will come to an end.”*

The various studies reviewed in this paper have revealed the prevalence and socio psychological problems experienced by women with PCOS. Given the magnitude of the problem more awareness programs, lifestyle modification strategies and developing preventive strategies at the school and college level are needed.

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