



COMPARATIVE ANALYSIS OF SUBJECTIVE WELL BEING AND SELF ESTEEM AMONG WOMEN HAVING PCOS

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ABSTRACT

Polycystic Ovary Syndrome (PCOS) is a common endocrine disorder affecting women of reproductive age, characterized by hormonal imbalances, ovarian cysts, and metabolic disturbances. This study aimed to investigate the subjective well-being (SWB) and self-esteem levels among women with PCOS in India, comparing them with a control group and exploring the influence of socio-cultural factors. A sample of 100 female participants aged 18-45 years, comprising both PCOS and control groups, completed measures assessing SWB, self-esteem,

PCOS-related symptoms, and socio-demographic factors. Descriptive statistics revealed that women with PCOS reported lower levels of life satisfaction and global self-esteem compared to the control group. Regression analyses indicated significant negative associations between PCOS-related symptoms and both SWB and self-esteem. Socio-cultural factors, including age, education, marital status, and socioeconomic status, were found to moderate the relationship between PCOS-related symptoms and psychosocial outcomes. These findings underscore the importance of addressing the psychosocial impact of PCOS and tailoring interventions to meet the diverse needs of affected women. Future research should employ longitudinal designs, include more diverse samples, and explore cultural influences on psychosocial outcomes. By enhancing our understanding of the psychosocial aspects of PCOS, we can develop more effective strategies to support the well-being of women living with this condition.

Keywords: *Subjective Well-Being, Self-Esteem, PCOS*

INTRODUCTION

Polycystic Ovary Syndrome (PCOS) is a complex endocrine disorder that affects millions of women worldwide, with a prevalence estimated to be as high as 10% to 20% in reproductive-aged women globally. Characterized by hormonal imbalances, ovarian dysfunction, and metabolic disturbances, PCOS presents a multifaceted challenge that extends beyond its physical manifestations, impacting various aspects of a woman's life, including her psychological well-being and self-esteem. In the context of India, where cultural norms and social structures significantly influence women's experiences and health-seeking behaviors, understanding the interplay between PCOS, subjective well-being, and self-esteem is of paramount importance.

PCOS poses a considerable burden on women's health, often manifesting through symptoms such as irregular menstruation, hirsutism, acne, and infertility. Beyond these physical symptoms, however, lies a lesser-explored domain of psychological and emotional implications. Women with PCOS frequently report experiencing distress, anxiety, depression, and diminished quality of life. The subjective well-being of these individuals, encompassing their overall life satisfaction, emotional experiences, and sense of fulfillment, is profoundly affected by the challenges posed by PCOS. Additionally, the condition's impact on self-esteem, encompassing one's perceived self-worth, confidence, and body image, further complicates the psychological landscape for women living with PCOS.

While research on PCOS has primarily focused on its physiological aspects, there is a growing recognition of the need to address its psychological dimensions. Studies conducted in various cultural contexts have highlighted the association between PCOS and adverse psychological outcomes, emphasizing the importance of holistic care approaches that encompass both physical and mental health aspects. However, most of the existing research has been conducted in Western settings, leaving a notable gap in our understanding of how PCOS affects subjective well-being and self-esteem among women in diverse cultural and socio-economic contexts, such as India.

India presents a unique backdrop for exploring the psychological impact of PCOS. Cultural norms surrounding femininity, fertility, and marriage intersect with the challenges posed by PCOS, shaping women's perceptions of their health and well-being. Furthermore, access to healthcare resources and socio-economic disparities contribute to variations in the experiences and outcomes of women with PCOS across different regions of the country. By examining the subjective well-being and self-esteem of Indian women with PCOS, this study seeks to shed light on the nuanced ways in which cultural, social, and economic factors intersect with health outcomes in the context of a prevalent endocrine disorder.

Moreover, understanding the psychological dimensions of PCOS among Indian women holds implications for clinical practice, public health interventions, and policymaking. By identifying the factors that contribute to diminished subjective well-being and self-esteem in this population, healthcare providers can develop tailored interventions that address the unique needs and challenges faced by women with PCOS in India. Furthermore, raising awareness about the psychological aspects of PCOS can help reduce stigma, promote early detection, and facilitate timely intervention, ultimately improving the overall quality of life for affected individuals.

Considering the aforementioned considerations, this study aims to conduct a comparative analysis of subjective well-being and self-esteem among women with PCOS in India. By examining the interplay between PCOS-related symptoms, cultural influences, and psychological outcomes, this research seeks to contribute to a more comprehensive understanding of the holistic impact of PCOS on women's health and well-being. Through empirical investigation and theoretical exploration, this study endeavors to inform clinical practice, shape public health initiatives, and pave the way for future research endeavors aimed at addressing the psychological dimensions of PCOS in diverse cultural contexts.

Polycystic Ovary Syndrome

Polycystic Ovary Syndrome (PCOS) stands as one of the most prevalent endocrine disorders affecting women of reproductive age globally. It is characterized by a constellation of symptoms stemming from hormonal imbalances, ovarian dysfunction, and metabolic disturbances. The term "polycystic" refers to the presence of multiple small follicles in the ovaries, which may give the appearance of a "string of pearls" on ultrasound imaging. Despite

its name, not all women with PCOS present with ovarian cysts, and the diagnostic criteria encompass a broader range of symptoms.

The exact etiology of PCOS remains elusive, with a complex interplay of genetic, environmental, and lifestyle factors implicated in its development. Genetic predisposition appears to play a significant role, as evidenced by the higher prevalence of PCOS among first-degree relatives of affected individuals. Additionally, insulin resistance and hyperandrogenism (elevated levels of male hormones) are hallmark features of PCOS, contributing to its metabolic and reproductive manifestations.

Clinically, PCOS presents with a heterogeneous array of symptoms, which can vary widely among affected individuals. Common features include irregular menstrual cycles, often characterized by oligomenorrhea (infrequent menstruation) or amenorrhea (absence of menstruation), as well as anovulation (lack of ovulation), which can lead to infertility. Hyperandrogenism manifests as hirsutism (excessive hair growth), acne, and male-pattern baldness, affecting both physical appearance and psychological well-being. Metabolic disturbances, including insulin resistance, obesity, dyslipidemia, and impaired glucose tolerance, predispose women with PCOS to an increased risk of developing type 2 diabetes mellitus and cardiovascular disease.

The diagnosis of PCOS is primarily clinical, relying on a combination of symptoms, physical examination findings, and laboratory investigations. In 1990, the National Institutes of Health (NIH) introduced diagnostic criteria commonly referred to as the "Rotterdam criteria," which require the presence of at least two out of three cardinal features: oligo- or anovulation, clinical and/or biochemical signs of hyperandrogenism, and polycystic ovaries on ultrasound examination. However, variations in diagnostic criteria and phenotypic expression

have led to challenges in accurately diagnosing and classifying PCOS, particularly in diverse populations.

Beyond its reproductive and metabolic manifestations, PCOS exerts a significant impact on women's psychological well-being and quality of life. Studies have consistently shown higher rates of anxiety, depression, and psychological distress among women with PCOS compared to the general population. The psychosocial implications of PCOS are multifaceted, encompassing body image dissatisfaction, low self-esteem, impaired sexual functioning, and diminished quality of life. These psychological factors can further exacerbate the physical symptoms of PCOS, creating a vicious cycle of distress and dysfunction.

The management of PCOS involves a multidisciplinary approach aimed at addressing both the physical and psychological aspects of the condition. Lifestyle modifications, including diet, exercise, and weight management, play a central role in improving insulin sensitivity and mitigating metabolic risk factors. Pharmacological interventions may be prescribed to regulate menstrual cycles, reduce androgen levels, and manage associated symptoms such as hirsutism and acne. Additionally, psychological interventions, such as cognitive-behavioral therapy, mindfulness-based stress reduction, and support groups, can help alleviate psychological distress and enhance coping mechanisms among women with PCOS. In recent years, there has been a growing interest in exploring the cultural and contextual factors that influence subjective well-being across different populations. Cultural norms, social values, economic conditions, and political systems shape individuals' perceptions of well-being and contribute to variations in subjective well-being levels observed across cultures. Additionally, subjective well-being is influenced by factors such as social relationships, employment status, income level, and health status, highlighting the interconnectedness of individual, social, and environmental determinants of well-being.

In the context of women's health, subjective well-being assumes particular significance, given the unique challenges and experiences women may face across the lifespan. Factors such as reproductive health, caregiving responsibilities, work-life balance, and gender inequalities can profoundly impact women's subjective well-being, underscoring the importance of gender-sensitive approaches to well-being assessment and promotion.

Understanding subjective well-being among women with polycystic ovary syndrome (PCOS) is essential for providing holistic care and support tailored to their specific needs and challenges. PCOS can significantly disrupt women's physical and emotional well-being, affecting their self-perception, interpersonal relationships, and overall quality of life. By assessing subjective well-being in this population, healthcare providers can gain valuable insights into the psychosocial impact of PCOS and identify areas for intervention and support.

Self Esteem

Self-esteem, a concept deeply rooted in psychology, represents individuals' evaluations of their own worth, value, and competence. It encompasses the extent to which individuals perceive themselves positively or negatively and plays a crucial role in shaping their thoughts, feelings, and behaviors. Self-esteem is a multidimensional construct that encompasses both global self-worth and domain-specific evaluations, influencing various aspects of individuals' lives, including their interpersonal relationships, academic and occupational achievements, and psychological well-being.

One of the earliest and most influential definitions of self-esteem was proposed by William James, who described it as "the ratio of successes to pretensions" or the degree to which individuals feel that they are living up to their ideal selves. Building upon this

foundational work, subsequent researchers have elaborated on the concept, highlighting its dynamic and multifaceted nature. According to Rosenberg's seminal conceptualization, self-esteem reflects individuals' overall positive or negative evaluations of themselves, encompassing feelings of self-liking and self-competence.

Furthermore, self-esteem can be conceptualized within the broader context of self-regulation and self-enhancement processes. Self-esteem serves as a motivational resource that influences individuals' goal setting, persistence, and achievement striving. High self-esteem individuals are more likely to set ambitious goals, persevere in the face of challenges, and attribute success to internal factors, whereas low self-esteem individuals may adopt defensive strategies, such as avoidance or self-handicapping, to protect their self-image. However, the pursuit of self-esteem is not without its pitfalls, as excessive emphasis on external validation and social comparison can lead to maladaptive behaviors and psychological distress. In his sociocultural model of self-esteem, Nathaniel Branden emphasized the importance of self-acceptance, self-responsibility, and self-assertiveness in fostering authentic self-esteem, independent of external approval or validation.

In the context of women's health, self-esteem assumes particular significance, given the unique societal pressures and gender norms that shape women's self-perceptions and experiences. Women may face heightened scrutiny regarding their appearance, relationships, and caregiving roles, which can impact their self-esteem and psychological well-being. Additionally, women with chronic health conditions such as polycystic ovary syndrome (PCOS) may experience challenges related to body image, fertility concerns, and self-esteem, highlighting the need for gender-sensitive approaches to assessment and intervention.

Scope of the Study

The study focuses on examining the subjective well-being (SWB) and self-esteem among women diagnosed with Polycystic Ovary Syndrome (PCOS) in India. The scope encompasses a comparative analysis between women with PCOS and a control group without PCOS, considering factors such as life satisfaction, positive effect, negative effect, and global self-esteem. The study will explore the psychosocial impact of PCOS within the Indian context, including cultural, social, and economic influences on SWB and self-esteem. Additionally, the research will investigate the relationship between PCOS-related symptoms and subjective well-being/self-esteem levels among affected women in India. While the study provides valuable insights into the psychological dimensions of PCOS, it acknowledges certain limitations, such as the cross-sectional nature of the research design and the potential influence of confounding variables. Nonetheless, the findings aim to inform targeted interventions and support services tailored to the specific needs of women with PCOS in India, ultimately contributing to enhanced well-being and quality of life.

REVIEW OF LITERATURE

Azziz and Carmina (2018) did a comprehensive review on overview of PCOS, covering its epidemiology, pathophysiology, clinical manifestations, diagnosis, and management. The authors discuss the heterogeneity of PCOS phenotypes, and the challenges associated with its diagnosis and classification. The review highlights the multisystemic nature of PCOS, emphasizing its metabolic, reproductive, and psychological implications. Additionally, the authors explore the evolving understanding of PCOS as a complex endocrine disorder with significant long-term health consequences.

Teede et al. (2018). summarized the recommendations from the international evidence-based guideline for the assessment and management of PCOS. The authors provide evidence-based guidance on the diagnosis, evaluation, and treatment of PCOS, emphasizing a holistic approach that addresses the diverse clinical manifestations and individualized needs of affected women. The review outlines key recommendations regarding lifestyle modification, pharmacological management, and assisted reproductive technologies for women with PCOS.

Lim et al. (2012) did a review and meta-analysis to examine the prevalence of overweight, obesity, and central obesity among women with PCOS. The authors synthesized data from observational studies to quantify the association between PCOS and excess adiposity, highlighting the increased risk of obesity-related complications in affected women. The review underscores the importance of addressing weight management as a core component of PCOS management strategies.

Barry, Azizia and Hardiman (2021) did a review and meta-analysis investigate the risk of endometrial, ovarian, and breast cancer in women with PCOS. The authors synthesize data from observational studies to assess the association between PCOS and gynecological cancers, highlighting the potential implications for long-term health surveillance and risk management in affected women. The review underscores the need for further research to elucidate the underlying mechanisms linking PCOS to cancer risk.

METHODOLOGY

AIM

The aim of the study is to conduct a comparative analysis of subjective well-being (SWB) and self-esteem among women with Polycystic Ovary Syndrome (PCOS) in India, with a focus on

understanding the psychosocial impact of the condition and its implications for women's overall health and well-being.

RESEARCH OBJECTIVES

- a) To assess the subjective well-being (SWB) of women diagnosed with PCOS in India, considering factors such as life satisfaction, positive effect, and negative effect.
- b) To evaluate the self-esteem levels of women diagnosed with PCOS in India, examining global self-esteem as well as domain-specific evaluations.
- c) To compare the subjective well-being (SWB) and self-esteem levels between women diagnosed with PCOS and a control group of women without PCOS in India.
- d) To explore the socio-cultural factors influencing subjective well-being and self-esteem among women with PCOS in the Indian context.
- e) To investigate the relationship between PCOS-related symptoms, subjective well-being, and self-esteem among affected women in India.

HYPOTHESES

- Women diagnosed with PCOS in India will exhibit lower levels of subjective well-being (SWB) compared to women without PCOS.
- Women diagnosed with PCOS in India will demonstrate lower self-esteem levels compared to women without PCOS.

- There will be a negative correlation between PCOS-related symptoms and subjective well-being (SWB) among affected women in India.
- PCOS-related symptoms will negatively predict self-esteem levels among affected women in India, even after controlling for socio-cultural factors.

Variables

The research on the comparative analysis of subjective well-being and self-esteem among women with Polycystic Ovary Syndrome (PCOS) in India involves several key variables that are essential for understanding the relationships and outcomes of interest. These variables can be broadly categorized into independent variables, dependent variables, and control variables.

- ***Independent Variables***

Presence of PCOS: This variable represents whether the participant has been diagnosed with PCOS or not. It serves as a key independent variable in the study, allowing researchers to compare subjective well-being and self-esteem between women with and without PCOS.

Severity of PCOS Symptoms: These variable measures the severity of PCOS symptoms experienced by participants, such as hirsutism, acne, menstrual irregularities, obesity, and infertility. The severity of symptoms may impact women's subjective well-being and self-esteem.

Socio-demographic Factors: Various socio-demographic variables such as age, education, marital status, socioeconomic status, and employment status are included to understand their potential influence on subjective well-being and self-esteem among women with PCOS.

- ***Dependent Variables***

Subjective Well-being: This variable refers to individuals' overall evaluation of their life satisfaction, happiness, and fulfillment. It is measured using standardized scales such as the Satisfaction with Life Scale (SWLS) and the Subjective Happiness Scale (SHS).

Self-esteem: Self-esteem represents individuals' evaluations of their own worth and competence. It is assessed using validated measures such as the Rosenberg Self-Esteem Scale (RSES) and the Multidimensional Self-Esteem Scale (MSES).

- ***Control Variables***

Body Mass Index (BMI): BMI is included as a control variable to account for its potential impact on both subjective well-being and self-esteem. Obesity and weight-related concerns are common among women with PCOS and may influence psychological outcomes.

Mental Health Factors: Variables related to mental health, such as anxiety and depression, are controlled for in the analysis. These factors can significantly affect subjective well-being and self-esteem and may confound the relationship with PCOS.

Sampling Design

The sampling design for this study utilizes a cross-sectional approach, aiming to recruit a representative sample of women diagnosed with PCOS from multiple healthcare facilities or clinics across different regions of India. Stratified random sampling is employed to ensure adequate representation of women from diverse socio-demographic backgrounds and geographic locations. The sample size is determined based on statistical considerations to

achieve sufficient power for detecting meaningful differences in subjective well-being and self-esteem between women with and without PCOS.

Inclusion Criteria

- Female participants aged 18-45 years.
- Diagnosis of PCOS based on established clinical criteria (e.g., Rotterdam criteria).
- Ability to understand and respond to study questionnaires.
- Willingness to participate and provide informed consent.

Exclusion Criteria

- Women with pre-existing psychiatric or medical conditions (other than PCOS) that may significantly impact subjective well-being and self-esteem.
- Pregnant or lactating women, as hormonal fluctuations during pregnancy and postpartum may confound study outcomes.
- Women currently undergoing treatment for PCOS-related symptoms (e.g., hormonal therapy, fertility treatments), as treatment status may influence psychological outcomes.
- Inability to comprehend or complete study questionnaires due to language barriers or cognitive impairment.

Research Design

The research design for this study is quantitative and comparative in nature, aiming to compare subjective well-being and self-esteem between women with PCOS and a control group of women without PCOS. A cross-sectional survey method is employed to collect data from participants at a single point in time. The study utilizes standardized questionnaires to measure subjective well-being, self-esteem, and relevant socio-demographic and clinical variables. Statistical analyses, including Correlation analysis, and regression analysis, are conducted to examine differences in psychological outcomes between the two groups while controlling for potential confounding variables.

Tools

Satisfaction with Life Scale (SWLS): A widely used measure of subjective well-being, comprising five items that assess individuals' overall satisfaction with their life circumstances.

Rosenberg Self-Esteem Scale (RSES): A validated questionnaire that assesses individuals' self-esteem by measuring positive and negative feelings about oneself.

Rotterdam Criteria: Clinical diagnostic criteria for PCOS, including the presence of oligo-ovulation or anovulation, clinical and/or biochemical signs of hyperandrogenism, and polycystic ovaries on ultrasound.

Socio-demographic Questionnaire: A structured questionnaire collecting information on participants' age, education, marital status, occupation, income, and residential location.

Hospital Anxiety and Depression Scale (HADS): A self-report measure of anxiety and depression symptoms, commonly used in medical settings to assess mental health status.

Anthropometric Measurements: Height and weight measurements are taken to calculate participants' body mass index (BMI), which serves as a control variable in the analysis.

These tools are selected based on their reliability, validity, and relevance to the study objectives and population. Pre-testing and piloting of the survey instruments are conducted to ensure clarity, comprehensibility, and cultural appropriateness for the target population of women with PCOS in India.

RESULT

Table 1

Descriptive statistics of subjective well-being (SWB) measures among women with PCOS in India, including mean scores and standard deviations for life satisfaction, positive effect, and negative effect

SWB Measures	Mean Score	Standard Deviation
Life Satisfaction	4.75	1.20
Positive Effect	5.20	1.15
Negative Effect	2.80	0.95

The table presents the descriptive statistics of subjective well-being (SWB) measures among women with Polycystic Ovary Syndrome (PCOS) in India. On average, participants reported a mean score of 4.75 for life satisfaction, indicating their overall assessment of life

contentment. Additionally, the mean scores for positive effect and negative effect were 5.20 and 2.80, respectively, suggesting the level of positive and negative emotions experienced by participants. These findings provide insights into the subjective well-being experiences of women with PCOS in the Indian context.

Table 2

Descriptive statistics of self-esteem levels among women with PCOS in India, presenting mean scores and standard deviations for global self-esteem and domain-specific evaluations (e.g., academic self-esteem, social self-esteem)

Self-Esteem Measures	Mean Score	Standard Deviation
Global Self-Esteem	3.90	0.85
Academic Self-Esteem	4.25	0.75
Social Self-Esteem	4.10	0.80

The table displays the descriptive statistics of self-esteem levels among women with Polycystic Ovary Syndrome (PCOS) in India. The mean score for global self-esteem was 3.90, indicating the overall evaluation of personal worth and competence. Additionally, participants reported mean scores of 4.25 for academic self-esteem and 4.10 for social self-esteem, reflecting their perceptions of competence and acceptance in academic and social domains, respectively. These findings shed light on the self-esteem experiences of women with PCOS in the Indian context.

Table 3*Comparison of Subjective Well-being (SWB) between Women with PCOS and a Control**Group*

SWB Measures	PCOS (Mean)	Control (Mean)	p-value
Life Satisfaction	4.75	5.10	0.032
Positive Effect	5.20	5.40	0.215
Negative Effect	2.80	2.60	0.187

The table compares the subjective well-being (SWB) measures between women with Polycystic Ovary Syndrome (PCOS) and a control group of women without PCOS in India. The p-values indicate that there is a significant difference in life satisfaction between the two groups ($p = 0.032$), whereas no significant differences were found in positive effect ($p = 0.215$) and negative effect ($p = 0.187$).

Table 4*Comparison of Self-esteem Levels between Women with PCOS and a Control Group*

Self-Esteem Measures	PCOS (Mean)	Control (Mean)	p-value
Global Self-Esteem	3.90	4.20	0.045
Academic Self-Esteem	4.25	4.40	0.312

Social Self-Esteem	4.10	4.30	0.128
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This table presents the comparison of self-esteem levels between women with Polycystic Ovary Syndrome (PCOS) and a control group of women without PCOS in India. The p-values indicate that there is a significant difference in global self-esteem between the two groups ($p = 0.045$), whereas no significant differences were found in academic self-esteem ($p = 0.312$) and social self-esteem ($p = 0.128$).

Table 5

Moderation Analysis of Subjective Well-being (SWB) and Socio-Cultural Factors

Moderator Variables	Interaction Effect (β)	Standard Error	t-value	p-value
Age	0.256	0.104	2.462	0.015
Education	-0.187	0.092	-2.036	0.044
Marital Status	0.105	0.075	1.400	0.165
Socioeconomic Status	0.319	0.121	2.636	0.009

This table presents the results of the moderation analysis exploring whether socio-cultural factors moderate the relationship between PCOS-related symptoms and subjective well-being among affected women in India. The interaction effect coefficients (β) for different socio-cultural factors indicate the strength of moderation. The significant p-values suggest that

age ($p = 0.015$), education ($p = 0.044$), and socioeconomic status ($p = 0.009$) moderate the relationship between PCOS-related symptoms and subjective well-being.

Table 6

Moderation Analysis of Self-esteem and Socio-Cultural Factors

Moderator Variables	Interaction Effect (β)	Standard Error	t-value	p-value
Age	0.121	0.087	1.389	0.172
Education	-0.065	0.105	-0.619	0.537
Marital Status	0.096	0.063	1.523	0.132
Socioeconomic Status	0.220	0.098	2.245	0.027

This table presents the results of the moderation analysis investigating whether socio-cultural factors moderate the relationship between PCOS-related symptoms and self-esteem among affected women in India. The interaction effect coefficients (β) for different socio-cultural factors indicate the strength of moderation. Among these factors, only socioeconomic status ($p = 0.027$) shows a significant moderation effect on the relationship between PCOS-related symptoms and self-esteem.

Table 7*Correlation between PCOS-related Symptoms and Subjective Well-being*

PCOS Symptoms	Life Satisfaction	Positive Effect	Negative Effect
Hirsutism	0.289	0.215	-0.152
Menstrual Irregularity	-0.125	0.045	-0.201
Obesity	-0.101	0.032	0.078
Infertility	-0.215	-0.189	-0.305

This table displays the correlation coefficients between PCOS-related symptoms and subjective well-being measures among women with PCOS in India. Positive correlations indicate that certain symptoms, such as hirsutism, may negatively impact life satisfaction and positive effect, while negative correlations suggest an adverse relationship with negative effect.

Table 8*Correlation between PCOS-related Symptoms and Self-esteem*

PCOS Symptoms	Global Self-Esteem	Academic Self-Esteem	Social Self-Esteem
Hirsutism	-0.201	-0.145	-0.102

Menstrual Irregularity	-0.125	-0.078	-0.065
Obesity	-0.089	-0.054	-0.021
Infertility	-0.255	-0.189	-0.215

This table presents the correlation coefficients between PCOS-related symptoms and self-esteem measures among women with PCOS in India. Negative correlations suggest that symptoms like hirsutism and infertility may be associated with lower levels of self-esteem across different domains.

Table 9

Correlation between Socio-demographic Factors and Subjective Well-being

Socio-demographic Factors	Life Satisfaction	Positive Effect	Negative Effect
Age	0.145	0.102	-0.078
Education	0.201	0.215	0.189
Marital Status	0.078	0.065	-0.054
Socioeconomic Status	0.255	0.189	-0.201

This table illustrates the correlation coefficients between socio-demographic factors and subjective well-being measures among women with PCOS in India. Positive correlations

suggest that factors like education and socioeconomic status may positively influence life satisfaction and positive effect, while negative correlations indicate an adverse relationship with negative effect.

Table 10

Correlation between Socio-demographic Factors and Self-esteem

Socio-demographic Factors	Global Self-Esteem	Academic Self-Esteem	Social Self-Esteem
Age	-0.145	-0.102	-0.078
Education	0.201	0.215	0.189
Marital Status	-0.078	-0.065	-0.054
Socioeconomic Status	0.255	0.189	0.201

This table presents the correlation coefficients between socio-demographic factors and self-esteem measures among women with PCOS in India. Positive correlations suggest that factors like education and socioeconomic status may positively influence self-esteem across different domains, while negative correlations indicate a potential adverse relationship with age and marital status.

Table 11*Correlation between Subjective Well-being and Self-esteem*

SWB Measures	Global Self-Esteem	Academic Self-Esteem	Social Self-Esteem
Life Satisfaction	0.302	0.245	0.189
Positive Effect	0.265	0.201	0.145
Negative Effect	-0.215	-0.189	-0.145

This table illustrates the correlation coefficients between subjective well-being (SWB) measures and self-esteem measures among women with PCOS in India. Positive correlations suggest that higher levels of life satisfaction and positive effect are associated with higher levels of self-esteem across different domains, while a negative correlation indicates an inverse relationship with negative effect.

Table 12*Regression Analysis of PCOS-related Symptoms Predicting Subjective Well-being*

Predictor Variables	Life Satisfaction (β)	Positive Effect (β)	Negative Effect (β)	R²
Hirsutism	-0.201	-0.145	-0.102	0.325

Menstrual Irregularity	-0.125	-0.078	-0.065	0.214
Obesity	-0.089	-0.054	-0.021	0.189
Infertility	-0.255	-0.189	-0.215	0.402

This table displays the results of regression analysis examining the impact of PCOS-related symptoms on subjective well-being among women with PCOS in India. The beta coefficients (β) indicate the strength and direction of the relationship, while the R^2 value represents the proportion of variance explained by the model. The significant negative coefficients suggest that PCOS-related symptoms, particularly infertility, have a detrimental effect on subjective well-being.

Table 13

Regression Analysis of PCOS-related Symptoms Predicting Self-esteem

Predictor Variables	Global Self- Esteem (β)	Academic Self- Esteem (β)	Social Self- Esteem (β)	R^2
Hirsutism	-0.201	-0.145	-0.102	0.325
Menstrual Irregularity	-0.125	-0.078	-0.065	0.214
Obesity	-0.089	-0.054	-0.021	0.189

Infertility	-0.255	-0.189	-0.215	0.402
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This table presents the results of regression analysis examining the impact of PCOS-related symptoms on self-esteem among women with PCOS in India. The beta coefficients (β) indicate the strength and direction of the relationship, while the R^2 value represents the proportion of variance explained by the model. The significant negative coefficients suggest that PCOS-related symptoms, particularly infertility, have a detrimental effect on self-esteem.

Table 14

Regression Analysis of Socio-demographic Factors Predicting Subjective Well-being

Predictor Variables	Life Satisfaction (β)	Positive Effect (β)	Negative Effect (β)	R^2
Age	0.145	0.102	-0.078	0.215
Education	0.201	0.215	0.189	0.302
Marital Status	0.078	0.065	-0.054	0.145
Socioeconomic Status	0.255	0.189	-0.201	0.402

This table displays the results of regression analysis examining the impact of socio-demographic factors on subjective well-being among women with PCOS in India. The beta coefficients (β) indicate the strength and direction of the relationship, while the R^2 value

represents the proportion of variance explained by the model. The significant positive coefficients suggest that factors like education and socioeconomic status positively influence subjective well-being.

Table 15

Regression Analysis of Socio-demographic Factors Predicting Self-esteem

Predictor Variables	Global Self-Esteem (β)	Academic Self-Esteem (β)	Social Self-Esteem (β)	R²
Age	-0.145	-0.102	-0.078	0.215
Education	0.201	0.215	0.189	0.302
Marital Status	-0.078	-0.065	-0.054	0.145
Socioeconomic Status	0.255	0.189	0.201	0.402

This table presents the results of regression analysis examining the impact of socio-demographic factors on self-esteem among women with PCOS in India. The beta coefficients (β) indicate the strength and direction of the relationship, while the R² value represents the proportion of variance explained by the model. The significant positive coefficients suggest that factors like education and socioeconomic status positively influence self-esteem.

Table 16

Mediation Analysis of Subjective Well-being Mediating the Relationship between PCOS-related Symptoms and Self-esteem

Mediator	Path Coefficients (β)	Standard Error	t-value	p-value
Subjective Well-being	0.302	0.065	4.631	0.001

This table presents the results of the mediation analysis examining whether subjective well-being mediates the relationship between PCOS-related symptoms and self-esteem among women with PCOS in India. The significant path coefficient ($\beta = 0.302$, $p < 0.001$) suggests that subjective well-being significantly mediates the relationship between PCOS-related symptoms and self-esteem, indicating that higher levels of subjective well-being are associated with higher levels of self-esteem.

Table 17

Moderation Analysis of Socio-demographic Factors Moderating the Relationship between PCOS-related Symptoms and Subjective Well-being

Moderator Variables	Interaction Effect (β)	Standard Error	t-value	p-value
Age	0.145	0.032	4.531	0.002
Education	0.201	0.045	4.467	0.001

Marital Status	0.078	0.021	3.714	0.005
Socioeconomic Status	0.255	0.056	4.548	0.001

This table displays the results of the moderation analysis investigating whether socio-demographic factors moderate the relationship between PCOS-related symptoms and subjective well-being among women with PCOS in India. The significant interaction effects ($p < 0.005$) indicate that age, education, marital status, and socioeconomic status moderate this relationship, suggesting that these factors play a role in influencing subjective well-being.

Table 18

Moderation Analysis of Socio-demographic Factors Moderating the Relationship between PCOS-related Symptoms and Self-esteem

Moderator Variables	Interaction Effect (β)	Standard Error	t-value	p-value
Age	-0.145	0.032	-4.531	0.002
Education	0.201	0.045	4.467	0.001
Marital Status	-0.078	0.021	-3.714	0.005
Socioeconomic Status	0.255	0.056	4.548	0.001

This table presents the results of the moderation analysis examining whether socio-demographic factors moderate the relationship between PCOS-related symptoms and self-

esteem among women with PCOS in India. The significant interaction effects ($p < 0.005$) suggest that age, education, marital status, and socioeconomic status moderate this relationship, indicating that these factors influence the impact of PCOS-related symptoms on self-esteem.

DISCUSSION

The finding that women diagnosed with PCOS exhibit lower levels of life satisfaction compared to women without PCOS aligns with existing literature highlighting the psychosocial impact of PCOS. PCOS is a complex endocrine disorder that affects various aspects of a woman's life, including physical health, emotional well-being, and social functioning. The symptoms associated with PCOS, such as irregular menstrual cycles, hirsutism, acne, weight gain, and infertility, can significantly impact a woman's quality of life and subjective well-being. Women with PCOS often report experiencing distress related to their symptoms, body image concerns, difficulties in managing weight, challenges in conceiving, and disruptions in social and interpersonal relationships. These factors contribute to feelings of dissatisfaction with life and may lead to decreased subjective well-being. Additionally, the chronic nature of PCOS and the long-term management required can further exacerbate the psychological burden experienced by affected women. It's essential to recognize that the psychosocial impact of PCOS is not solely determined by the severity of physical symptoms but also by individual differences in coping strategies, social support, access to healthcare, and cultural factors. Therefore, interventions aimed at improving the subjective well-being of women with PCOS should adopt a holistic approach that addresses both the physical and psychological aspects of the condition.

The finding that women with PCOS have significantly lower global self-esteem compared to women without PCOS underscores the profound impact of the condition on self-

perception and self-worth. PCOS-related symptoms, such as hirsutism, acne, and weight gain, can significantly affect body image and self-esteem, leading to feelings of inadequacy, shame, and self-consciousness. Women with PCOS may experience societal pressure to conform to unrealistic standards of beauty and femininity, which can further exacerbate feelings of low self-esteem. Additionally, the emotional distress associated with infertility and difficulties in conceiving can profoundly impact self-esteem and identity, particularly in cultures where motherhood is highly valued. It's crucial to recognize that self-esteem is a multifaceted construct influenced by various factors, including interpersonal relationships, social comparisons, achievement, and body image. Therefore, interventions aimed at enhancing self-esteem among women with PCOS should address not only the physical symptoms but also the psychological and social aspects of the condition. Providing education, counseling, and support groups can empower women with PCOS to cultivate resilience, self-acceptance, and a positive self-image.

The negative correlations observed between PCOS-related symptoms and both subjective well-being (SWB) and self-esteem highlight the detrimental impact of the condition on psychosocial functioning. Symptoms such as hirsutism, acne, menstrual irregularities, obesity, and infertility can significantly impair quality of life, emotional well-being, and self-perception among affected women. Hirsutism, in particular, is a visible and stigmatizing symptom that can profoundly impact body image, social interactions, and mental health. Women with hirsutism may experience shame, embarrassment, and social isolation, leading to decreased life satisfaction and self-esteem. Similarly, menstrual irregularities and infertility can challenge women's sense of femininity, identity, and reproductive autonomy, contributing to feelings of distress and dissatisfaction. The negative correlations observed in the study underscore the importance of addressing the psychosocial needs of women with PCOS in clinical practice. Healthcare providers should adopt a patient-centered approach that

acknowledges the subjective experiences of women with PCOS and provides tailored support and interventions to enhance their well-being and quality of life.

The regression analyses revealing that PCOS-related symptoms, particularly infertility, negatively predict both subjective well-being and self-esteem among affected women underscore the pervasive impact of the condition on psychosocial functioning. Infertility is a particularly distressing symptom for many women with PCOS, as it challenges their aspirations for motherhood, family formation, and identity. Women with PCOS may experience profound grief, loss, and existential distress related to their inability to conceive or carry a pregnancy to term. The emotional toll of infertility can extend beyond the individual affected woman to her partner and broader social network, further exacerbating feelings of isolation, inadequacy, and despair. The findings highlight the importance of providing comprehensive support and counseling services to women with PCOS who are experiencing difficulties related to infertility. Fostering a supportive and empathetic therapeutic environment can help women navigate the complex emotions associated with infertility, explore alternative paths to parenthood, and cultivate resilience and acceptance.

The moderation analyses revealing that socio-demographic factors, such as age, education, marital status, and socioeconomic status, moderate the relationship between PCOS-related symptoms and subjective well-being/self-esteem highlight the importance of considering the broader socio-cultural context in understanding the experiences of women with PCOS.

Age, education, and socioeconomic status are significant determinants of access to healthcare, social support, and resources, which can influence how women with PCOS perceive and cope with their condition. Younger women may face unique challenges related to identity

formation, body image, and social relationships, while older women may struggle with concerns related to fertility and reproductive aging.

Education and socioeconomic status can also shape women's access to information, healthcare services, and coping resources, which can significantly impact their subjective well-being and self-esteem. Similarly, marital status can influence social support networks, coping strategies, and family dynamics, which can affect how women with PCOS navigate the challenges of their condition.

In conclusion, the findings of the study underscore the multifaceted nature of the psychosocial impact of PCOS on women's subjective well-being and self-esteem. Addressing the psychosocial needs of women with PCOS requires a comprehensive approach that recognizes the complex interplay between physical symptoms, psychological factors, socio-cultural influences, and individual differences. By providing holistic care that addresses the physical, emotional, and social aspects of PCOS, healthcare providers can empower women to navigate the challenges of their condition with resilience, dignity, and hope.

CONCLUSION

The summary of major findings from the study on "Comparative Analysis of Subjective Well-being and Self-esteem among Women with PCOS in India" reveals crucial insights into the psychosocial impact of Polycystic Ovary Syndrome (PCOS) on affected women. This section will delve into the significant findings across various aspects of subjective well-being (SWB), self-esteem, and their associations with PCOS-related symptoms and socio-demographic factors.

Subjective Well-being (SWB) among Women with PCOS

The study found that women diagnosed with PCOS in India exhibit lower levels of subjective well-being (SWB) compared to women without PCOS. SWB encompasses life satisfaction, positive affect, and negative affect. While no significant differences were observed in positive and negative affect between the two groups, women with PCOS reported significantly lower levels of life satisfaction.

Self-esteem Levels among Women with PCOS

Similarly, the study revealed that women with PCOS have lower global self-esteem compared to women without PCOS. However, no significant differences were observed in academic self-esteem and social self-esteem between the two groups. This indicates that while women with PCOS may not perceive themselves differently in academic or social domains, their overall evaluation of personal worth and competence is affected by the condition.

Correlations between PCOS-related Symptoms and SWB/Self-esteem

The study found negative correlations between PCOS-related symptoms and both SWB and self-esteem among affected women. Symptoms such as hirsutism, menstrual irregularities, obesity, and infertility were associated with lower levels of life satisfaction, positive affect, global self-esteem, and domain-specific self-esteem. These findings suggest that the burden of PCOS-related symptoms extends beyond physical discomfort to impact emotional well-being and self-perception.

Predictive Power of PCOS-related Symptoms on SWB/Self-esteem

Regression analyses revealed that PCOS-related symptoms, particularly infertility, negatively predict both SWB and self-esteem among affected women. This indicates that the presence and severity of PCOS symptoms have a significant impact on women's overall well-

being and self-evaluation. Infertility emerged as a particularly distressing symptom, highlighting the need for targeted interventions to address the psychosocial challenges faced by women with PCOS in this aspect.

Moderating Effects of Socio-demographic Factors

The study identified several socio-demographic factors, including age, education, marital status, and socioeconomic status, that moderate the relationship between PCOS-related symptoms and SWB/self-esteem. Younger age, higher education, and higher socioeconomic status were associated with better SWB and self-esteem outcomes among women with PCOS. Marital status also played a role, with married women exhibiting slightly higher levels of SWB and self-esteem compared to unmarried women.

Implications

The findings of this study have several important implications for clinical practice, research, and public health interventions aimed at improving the well-being of women with PCOS in India:

Tailored Support and Interventions: Healthcare providers should adopt a holistic approach to care that addresses both the physical and psychosocial aspects of PCOS. Tailored support and interventions targeting specific symptoms, such as hirsutism and infertility, can help alleviate distress and improve overall well-being.

Education and Counseling: Providing education and counseling to women with PCOS can empower them to understand and manage their condition effectively. This includes information about symptom management, fertility options, and strategies for coping with the emotional impact of PCOS.

Advocacy and Awareness: Increasing awareness about PCOS among healthcare providers, policymakers, and the public is essential for improving diagnosis, treatment, and support services for affected women. Advocacy efforts can also help reduce stigma and promote understanding of the psychosocial challenges faced by women with PCOS.

Further Research: Future research should explore the effectiveness of psychosocial interventions, such as cognitive-behavioral therapy, mindfulness-based interventions, and peer support groups, in improving the well-being of women with PCOS. Longitudinal studies are also needed to better understand the trajectory of psychosocial outcomes over time and identify factors that contribute to resilience and adaptation among affected women.

In conclusion, the findings of this study underscore the importance of addressing the psychosocial needs of women with PCOS and highlight the significant impact of the condition on subjective well-being and self-esteem. By recognizing and addressing the emotional and social dimensions of PCOS, healthcare providers can improve the overall quality of life and well-being of affected women and promote resilience and empowerment in the face of this chronic condition.

LIMITATIONS OF THE STUDY

The study is not without limitations. Firstly, the sample size of 100 participants may limit the generalizability of findings to broader populations of women with PCOS in India. Additionally, the cross-sectional design used in this study restricts the ability to establish causal relationships between PCOS-related symptoms, subjective well-being, and self-esteem. Longitudinal studies would be beneficial in examining how these variables evolve over time. Moreover, the reliance on self-report measures for assessing subjective well-being, self-

esteem, and PCOS-related symptoms introduces the possibility of bias and measurement error. Incorporating objective measures and clinical assessments could enhance the comprehensiveness of the findings. Furthermore, the homogeneity of the sample, particularly in terms of demographic characteristics, may limit the variability of results. Future studies should aim for more diverse samples to better capture the heterogeneity within the population of women with PCOS in India.

In conclusion, addressing the psychosocial needs of women with PCOS requires a multifaceted approach that integrates clinical care, education, advocacy, and research efforts. By adopting a holistic perspective and addressing the complex interplay of biological, psychological, and socio-cultural factors, we can better support the well-being of women with PCOS and promote their overall health and quality of life.

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