Mental Health and Body Image Concerns in Women with Polycystic Ovarian Syndrome: A Profile of Anxiety, Depression, and Self-Esteem

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Abstract:

Polycystic Ovarian Syndrome (PCOS) is a common endocrine disorder affecting women of reproductive age, often linked with both physical symptoms, such as hirsutism and obesity, and significant mental health impacts. The aim of this study was to profile anxiety, depression, body shape preoccupation, and self-esteem among women with PCOS compared to healthy controls, thereby highlighting the psychological burden associated with this syndrome. A cross-sectional observational design was utilized, with participants recruited from Krishna Hospital, Karad, between June 2022 and November 2023. The study involved 126 women, 63 with PCOS and 63 healthy controls, who were assessed using standardized questionnaires: Hamilton's Anxiety and Depression Scales, the Body Shape Questionnaire, and the Rosenberg Self-Esteem Scale. Findings revealed that women with PCOS exhibited significantly higher levels of anxiety (mean = 15.06, SD = 9.794) and depression (mean = 9.38, SD = 5.467) than controls, alongside lower self-esteem and greater body shape preoccupation. Correlation analysis indicated that body shape concerns were positively associated with weight, anxiety, and depression, and negatively correlated with self-esteem. Women with normal BMI but with PCOS still reported elevated anxiety and depression, suggesting intrinsic factors beyond weight. These results underscore the need for integrated mental health support in managing PCOS. Addressing psychological factors in PCOS care could improve both mental and physical health outcomes for affected women.

Keywords*: Polycystic Ovarian Syndrome (PCOS), Anxiety and Depression, Body Image Preoccupation, Self-Esteem, Mental Health in Women*

1. Introduction

Polycystic Ovarian Syndrome (PCOS) is one of the most prevalent endocrine disorders affecting women of reproductive age, impacting approximately 5-10% of this population globally. Characterized by a range of symptoms, including irregular menstrual cycles, hyperandrogenism (excessive male hormones), and polycystic ovaries, PCOS is also frequently associated with metabolic and psychological complications. Women with PCOS often experience obesity, insulin resistance, and an increased risk of developing type 2 diabetes and cardiovascular disease. Beyond these physiological symptoms, PCOS significantly affects mental well-being, leading to an increased risk of psychological issues, such as anxiety, depression, body image preoccupation, and reduced self-esteem [1]. Together, these factors compound the challenges that women with PCOS face, affecting not only their physical

health but also their emotional and social lives. The psychological impact of PCOS is profound and multifaceted. Women with PCOS often contend with physical changes, such as weight gain, acne, and hirsutism (excessive body hair), which contribute to negative body image. Societal standards regarding beauty and body size can intensify these feelings, as women may perceive themselves as deviating from these ideals. Studies indicate that body image preoccupation is common among women with PCOS and can lead to a distorted self-perception. This preoccupation often exacerbates feelings of low self-esteem, as many women feel dissatisfied with their physical appearance, a factor closely linked to anxiety and depressive symptoms. Additionally, the emotional stress of managing PCOS symptoms over time may contribute to the development of mood disorders, further impacting a woman's overall quality of life [2]. One of the prominent psychological concerns among women with PCOS is anxiety, often driven by both external and internal stressors related to the disorder. The unpredictable nature of PCOS symptoms, alongside concerns about fertility, body image, and societal expectations, can contribute to heightened levels of anxiety. For instance, the irregularity of menstrual cycles and the potential challenges with fertility may cause stress about future family planning, a common concern among women of reproductive age. Furthermore, the visible symptoms of PCOS, such as weight gain and hirsutism, may lead to social anxiety and withdrawal, as affected individuals may feel self-conscious or fear judgment from others. Thus, anxiety in women with PCOS is often a result of a complex interplay between physiological symptoms and psychosocial factors [3].

Depression is another significant mental health challenge frequently observed in women with PCOS. Studies have shown that the prevalence of depressive symptoms is notably higher in this population compared to women without the disorder. The combination of hormonal imbalances, body image concerns, and social isolation can lead to persistent sadness, a lack of motivation, and feelings of hopelessness. The impact of depression on daily functioning can be considerable, affecting personal relationships, career ambitions, and overall life satisfaction. Furthermore, depression can create a cyclical effect, where decreased motivation hinders healthy lifestyle changes, such as physical activity, that could potentially improve PCOS symptoms [4]. Self-esteem is closely linked to both anxiety and depression, and women with PCOS often report lower levels of self-worth. The disorder's physical manifestations can alter how women perceive themselves, leading to self-criticism and reduced self-acceptance. Low self-esteem is associated with a higher likelihood of developing mood disorders, as individuals with diminished self-worth may struggle to cope effectively with the challenges posed by PCOS. Additionally, body shape preoccupation, or an excessive focus on one's physical appearance, is commonly seen in women with PCOS, further undermining self-esteem and contributing to mental health difficulties. This study aims to explore the profile of anxiety, depression, body image concerns, and self-esteem among women with PCOS, compared to healthy controls [5]. By understanding the psychological dimensions of PCOS, healthcare providers can offer more comprehensive care, addressing both physical symptoms and mental well-being. The findings from this research may highlight the importance of integrating mental health support into PCOS treatment plans, fostering a holistic approach to managing this complex and impactful disorder.

2. Literature Review

The psychological effects of Polycystic Ovarian Syndrome (PCOS) have received growing attention in recent years as researchers seek to understand the mental health burdens associated with this complex disorder. A body of literature demonstrates that PCOS affects not only the physical health of women but also significantly impacts their mental well-being, including heightened levels of anxiety, depression, body image dissatisfaction, and low self-esteem. These psychological challenges arise

from a combination of physical symptoms, societal expectations, and individual perceptions, making PCOS a multidimensional condition that requires both medical and psychological interventions. Anxiety and depression are frequently documented among women with PCOS, with studies indicating that these individuals are more likely to experience mood disorders than women without the condition. Deeks et al. (2011) conducted a cross-sectional study highlighting that women with PCOS were at a significantly higher risk for anxiety and depressive symptoms, particularly those with elevated androgen levels [5]. These findings are supported by research from Dokras et al. (2011), who found that the prevalence of depression in women with PCOS was nearly three times that of controls. The study further noted that anxiety, similarly, was much more common in women with PCOS. Both Deeks and Dokras suggested that the persistent, often visible symptoms of PCOS—such as hirsutism, acne, and weight gain—contribute to these psychological issues, as they can create feelings of social alienation and self-consciousness. Another area of related work examines the effects of PCOS on body image and self-esteem, highlighting how physical symptoms impact mental health. Studies have shown that women with PCOS frequently struggle with body image issues, often viewing themselves as less attractive due to weight gain, acne, and other visible symptoms. Hahn et al. (2005) investigated body image dissatisfaction among women with PCOS and found that these women reported significantly lower satisfaction with their appearance compared to controls. Similarly, Trent et al. (2002) explored the impact of weight gain and hirsutism on self-esteem in adolescent girls with PCOS, concluding that these factors were associated with negative body image and reduced self-worth. The visibility of symptoms plays a critical role in these perceptions, as women may feel judged or stigmatized based on their appearance, reinforcing negative self-perceptions [6].

A number of studies have explored the interplay between hormonal imbalances in PCOS and mental health outcomes, shedding light on the biological underpinnings of psychological distress in affected women. For instance, research by Barry et al. (2011) demonstrated that elevated androgen levels, commonly observed in women with PCOS, were strongly correlated with increased anxiety and depressive symptoms [7]. This hormonal link suggests that the psychological effects of PCOS may be partly driven by biological factors rather than solely by psychosocial stressors. Furthermore, research on insulin resistance, another common feature of PCOS, indicates that metabolic disturbances may exacerbate mood disorders in this population. Jedel et al. (2010) found that insulin resistance was significantly associated with higher levels of depressive symptoms, suggesting that both hormonal and metabolic factors contribute to the mental health burden in PCOS [8].

Body shape preoccupation, or an excessive focus on appearance, is also a recurring theme in the literature on PCOS. McCook et al. (2005) examined the levels of body shape concern in women with PCOS and reported that these women scored significantly higher on measures of body shape preoccupation than their counterparts without PCOS. This preoccupation can be linked to societal expectations and pressures surrounding beauty and thinness, particularly for women, and can exacerbate feelings of inadequacy among those with PCOS. The study by McCook et al. highlights that body shape preoccupation is not merely a superficial concern; it can lead to profound psychological effects, such as chronic stress, self-criticism, and a diminished quality of life. Moreover, the study emphasizes the need for healthcare providers to address body image concerns as part of a comprehensive PCOS treatment plan [9]. Research also suggests that self-esteem issues are prevalent in women with PCOS, often linked to both body image and mental health factors. Studies have shown that women with PCOS generally have lower self-esteem than their counterparts, and this lowered self-worth can compound symptoms of anxiety and depression. Bazarganipour et al. (2014) examined self-esteem levels in Iranian women with PCOS and found a significant reduction in self-esteem scores

compared to women without the syndrome. This study reinforced the notion that self-perception in PCOS is often negative, influenced by societal standards and the internalization of perceived flaws. Additionally, the researchers pointed out that low self-esteem is likely to reduce coping mechanisms in women with PCOS, making it harder for them to manage the challenges of the syndrome effectively. Together, these studies illustrate the breadth of psychological issues faced by women with PCOS and underscore the need for a holistic approach to managing the disorder. While medical treatments, such as hormonal therapies and lifestyle interventions, address the physical symptoms, mental health support is essential to improve quality of life. These findings collectively indicate that healthcare providers should adopt a multidisciplinary approach to PCOS management, integrating psychological counseling and support services to address anxiety, depression, body image concerns, and self-esteem. By recognizing the psychological dimension of PCOS, researchers and clinicians can contribute to more effective and empathetic care for women dealing with this condition.

Table 1: Summary of literature review

Method	Approach	Key Finding	Limitation	Scope
Cross-sectional study [10]	Survey on anxiety and depression in PCOS	Higher anxiety and depression levels in women with PCOS	Self-reported data, no long-term tracking	Shows prevalence of anxiety and depression, suggests need for mental health support
Comparative study [11]	Compared PCOS and control groups	PCOS group had three times higher prevalence of depression	Limited sample diversity	Highlights significant mental health disparity between PCOS and control groups
Psychological assessment [12]	Self-esteem questionnaire	PCOS women report lower self-esteem due to appearance-related issues	Subjective self-assessment, no external observation	Provides insight into self-esteem impacts, emphasizing psychological support
Clinical study [13]	Hormonal level analysis	Elevated androgen levels correlate with higher anxiety and depression	No psychosocial variable analysis	Connects hormonal imbalances to mental health, supports hormone-focused interventions
Observational study [14]	Body image survey	Significant body image dissatisfaction among PCOS patients	Limited cultural context	Emphasizes role of appearance in mental health, applicable to culturally diverse populations
Adolescent PCOS study	Impact of hirsutism and	Negative body image and self-worth among	Focuses only on adolescents, does not	Highlights early psychological effects, guiding early

[15]	weight gain	adolescent PCOS patients	consider adult women	intervention in adolescents
Cross-sectional study [16]	Hormonal and metabolic analysis	Insulin resistance linked to higher depression scores	Focuses primarily on physiological markers	Adds understanding of metabolic links to mental health, supporting holistic PCOS management
Body shape concern study [17]	Body shape preoccupation assessment	PCOS patients show high body shape preoccupation	Not longitudinal, does not track body image evolution	Suggests ongoing support for body image concerns, addressing PCOS-specific appearance factors
Self-esteem survey	Compared PCOS vs. non-PCOS self-esteem	PCOS patients exhibit significantly lower self-esteem	Limited to self-reported data	Reinforces low self-esteem link, recommends self-esteem enhancement in treatment plans
Questionnaire survey	Self-esteem and coping mechanisms	Lower self-esteem linked to poor coping skills	Small sample, lacks longitudinal data	Supports integration of coping skill training with mental health interventions
Hormone-focused study [18]	Correlation of androgens with anxiety	Higher androgen levels associated with greater anxiety	Limited to biological factors without psychosocial context	Supports endocrine-focused treatment to address anxiety in PCOS
Comparative body image study	Body satisfaction in PCOS vs. control	PCOS women have lower body satisfaction regardless of weight status	Does not account for varying weight ranges	Emphasizes need for body positivity programs tailored to PCOS patients
Systematic review and meta-analysis	Review of anxiety, depression, body image	High prevalence of mental health issues and body image dissatisfaction in PCOS	Aggregates prior studies, lacks new data	Comprehensive overview supports holistic approach addressing both mental health and body image issues

3. Etiology and Risk Factors

Polycystic Ovarian Syndrome (PCOS) is a multifactorial disorder with a complex etiology involving

genetic, hormonal, metabolic, and environmental factors. Though the exact cause of PCOS is not fully understood, several risk factors and mechanisms have been identified that contribute to the development and persistence of this condition. These factors include genetic predisposition, neuroendocrine disruptions, insulin resistance, inflammation, obesity, and lifestyle factors, each interacting in ways that increase susceptibility to PCOS.

A. Genetic Factors

Genetics plays a significant role in the development of PCOS, as seen in familial clustering of cases. Studies suggest that PCOS may be heritable, with up to 40% of first-degree female relatives also showing symptoms of the disorder. Multiple genes have been implicated, including those involved in hormone production, insulin signaling, and inflammation. Specifically, variations in the Follistatin gene, which influences ovarian function, have been linked to PCOS. Additionally, genes associated with the production of androgenic enzymes, such as CYP11A and CYP17, are thought to contribute to the hormonal imbalances characteristic of PCOS. Despite progress in identifying potential genes, more research is needed to understand the exact genetic mechanisms driving PCOS.
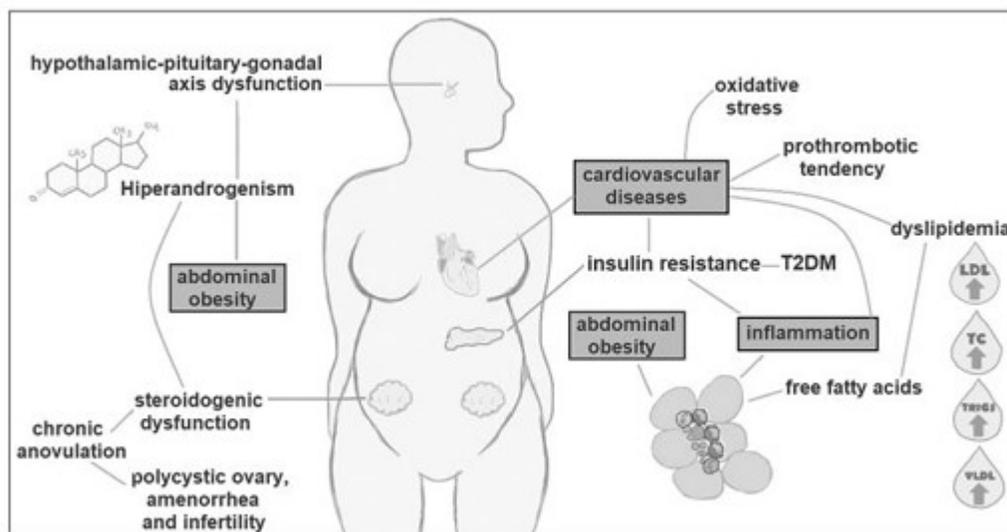

Figure 1: Representation of PCOS high risk factor

B. Neuroendocrine Dysfunction

The hypothalamic-pituitary-ovarian (HPO) axis is crucial in regulating menstrual cycles and reproductive function. In PCOS, the HPO axis often exhibits dysfunction, with an increased frequency of gonadotropin-releasing hormone (GnRH) pulses leading to an elevated luteinizing hormone (LH) to follicle-stimulating hormone (FSH) ratio. This hormonal imbalance promotes excessive ovarian androgen production and disrupts normal follicle maturation, contributing to the formation of ovarian cysts and anovulation. The dysregulated HPO axis is therefore a central neuroendocrine factor in PCOS, sustaining its symptoms over time.

C. Insulin Resistance and Hyperinsulinemia

Insulin resistance, a condition where the body's cells become less responsive to insulin, is a well-established risk factor for PCOS. Approximately 70% of women with PCOS exhibit insulin resistance, leading to compensatory hyperinsulinemia, or elevated insulin levels in the bloodstream. High insulin

levels stimulate ovarian androgen production and inhibit sex hormone-binding globulin (SHBG) synthesis in the liver, increasing free androgen levels. The resulting hyperandrogenism exacerbates PCOS symptoms, including hirsutism, acne, and menstrual irregularities. Insulin resistance is also associated with other metabolic conditions, such as obesity and type 2 diabetes, which are often seen in women with PCOS.

D. Chronic Inflammation

PCOS is characterized by low-grade, chronic inflammation, which may contribute to both the initiation and progression of the disorder. Inflammatory markers, such as C-reactive protein (CRP), tumor necrosis factor-alpha (TNF-α), and interleukin-6 (IL-6), are often elevated in women with PCOS. These pro-inflammatory markers can stimulate androgen production, worsen insulin resistance, and increase oxidative stress, creating a vicious cycle that perpetuates PCOS symptoms. Chronic inflammation also raises the risk of cardiovascular disease, a common comorbidity in PCOS patients, underscoring the need for anti-inflammatory approaches in managing the syndrome.

E. Obesity

Obesity is not a direct cause of PCOS, but it significantly exacerbates its symptoms. Approximately 50-80% of women with PCOS are overweight or obese, and the accumulation of abdominal fat is particularly common. Obesity worsens insulin resistance and increases androgen levels, intensifying PCOS symptoms. Adipose tissue, especially visceral fat, releases pro-inflammatory cytokines that contribute to systemic inflammation, further aggravating metabolic and reproductive irregularities in PCOS. Weight management through diet, exercise, and lifestyle changes is therefore essential in reducing the severity of PCOS symptoms.

F. Environmental and Lifestyle Factors

Lifestyle and environmental factors, including diet, physical activity levels, and exposure to endocrine-disrupting chemicals, may influence the development and severity of PCOS. High-calorie diets rich in processed foods, coupled with a sedentary lifestyle, can exacerbate insulin resistance and obesity, compounding the impact of PCOS. Additionally, exposure to chemicals such as bisphenol A (BPA), found in plastics, has been linked to hormone disruption and may influence the hormonal imbalances seen in PCOS. Managing lifestyle factors is thus critical to improving PCOS symptoms and reducing its long-term complications.

In PCOS is a complex syndrome with multiple etiological factors. Genetics, neuroendocrine dysregulation, insulin resistance, chronic inflammation, obesity, and lifestyle factors contribute to its onset and severity. An understanding of these interconnected risk factors is essential for a comprehensive approach to managing PCOS, focusing on both physiological and lifestyle interventions to address its multifaceted nature.

4. Study Design and Population

This study was conducted on a sample of women diagnosed with Polycystic Ovarian Syndrome (PCOS), with a focus on understanding the mental health impacts associated with the disorder. The study followed specific inclusion and exclusion criteria to ensure relevance and accuracy in data collection. Women included in the study were within the reproductive age group, educated to at least the 10th standard to ensure comprehension of the study materials and procedures. All participants had a confirmed diagnosis of PCOS based on ultrasound findings and clinical impressions, ensuring that only eligible cases with verified diagnoses were considered for the study. Women with comorbid

medical or psychiatric conditions or physical disabilities were excluded to minimize confounding factors that could impact psychological measures.
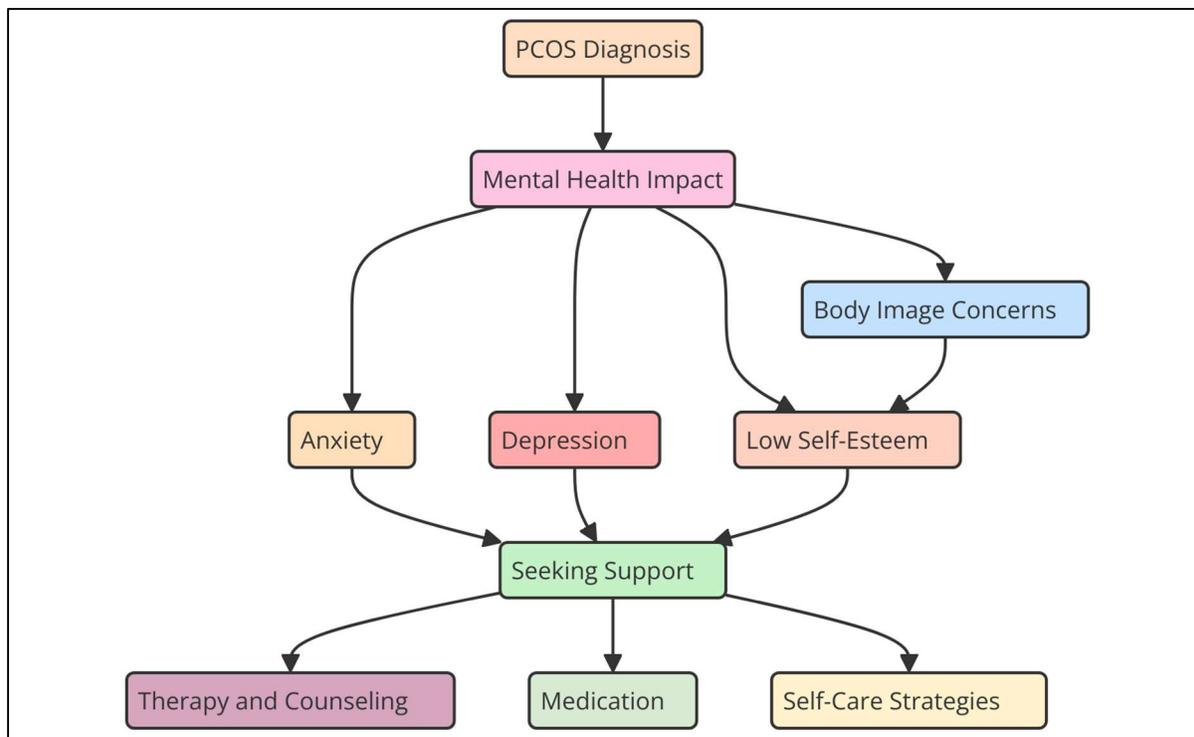

Figure 2: Overview of Mental Health and Body Image Concerns in Women with Polycystic Ovarian Syndrome

The study design involved a case-control approach, comparing a sample size of 140 women split into two equal groups of 70: one group of women diagnosed with PCOS and a control group of healthy women without PCOS. Sample size calculation was based on prior research indicating that PCOS is associated with reduced quality of life, specifically in areas of anxiety and depression. The sample size formula utilized factors including the standard deviations (SD1 and SD2) of quality-of-life scores in PCOS (3.5 ± 0.9) and non-PCOS populations (3.8 ± 0.9), a 95% confidence interval (Z1-α/2 = 1.96), and an 80% power level (Z1-β = 0.84). Calculations led to an estimated sample size of 140, designed to provide adequate power for comparing mental health indicators in PCOS-affected individuals versus healthy controls, yielding robust and generalizable results for the study's aims.

5. Observation and Result

The socio-demographic characteristics of the study participants are summarized in Table 2, providing an overview of the population's age, weight, height, residence, marital status, education, occupation, income, and socio-economic class. This analysis offers insights into the background of women diagnosed with Polycystic Ovarian Syndrome (PCOS) and healthy controls, which can inform interpretations of the study's findings. The mean age of the participants was 22.09 years, with a standard deviation of 2.090, and ages ranged from 20 to 30. This indicates that the study primarily involved young women within their reproductive years, which aligns with the target population for PCOS research, as PCOS is often diagnosed in early adulthood. Understanding age distribution is important as it affects the generalizability of the findings, and younger populations may experience

different socio-economic or psychological factors compared to older women with PCOS.

Table 2: Representation of Socio demographic analysis

Variable	Mean	SD	Min.	Max.	N
Age	22.09	2.090	20	30	126
Weight	61.05	10.646	40	86	126
Height	159.89	5.400	150	177	126
Residence	1.10	0.345	1	3	126
Marital status	1.10	0.295	1	2	126
Education	6.36	0.774	4	7	126
Occupation	7.96	2.170	5	10	126
Income	10.54	2.153	4	12	126
Class	1.57	0.662	1	3	126

In terms of weight and height, the mean weight of participants was 61.05 kg, with a standard deviation of 10.646, and weights ranged from 40 to 86 kg. The average height was 159.89 cm, with a standard deviation of 5.400 and a range from 150 to 177 cm. These metrics give context to the BMI (Body Mass Index) distribution, which is relevant in PCOS research since weight and BMI are often associated with PCOS symptoms like insulin resistance, hormonal imbalances, and metabolic risks. The wide range in weight indicates variation within the sample, possibly reflecting differences in lifestyle or severity of PCOS symptoms, as weight gain is a common symptom of PCOS. Residence was recorded on a scale where "1" likely represents rural, "2" semi-urban, and "3" urban areas, with a mean of 1.10 and a standard deviation of 0.345.
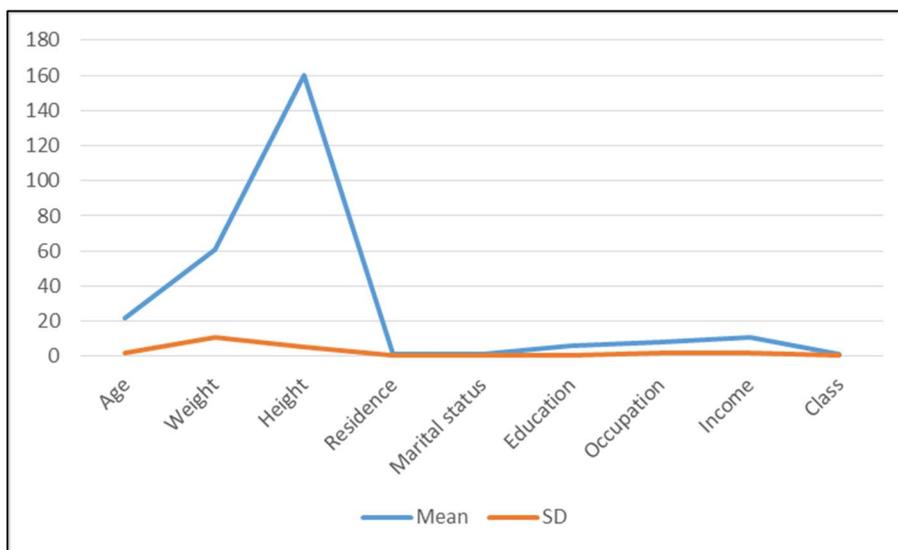

Figure 3: Representation for SD and mean

This suggests that most participants were from rural areas, which could impact lifestyle factors such as diet, physical activity, and access to healthcare. Rural women may experience different socio-economic challenges and healthcare access issues than those in urban areas, affecting their experiences with PCOS and its management. Marital status was also represented as a numerical scale, with a mean of 1.10 and a standard deviation of 0.295, where "1" may indicate unmarried and "2" married. With most participants being unmarried, this factor might influence psychological variables, such as anxiety and depression. Women with PCOS, especially in younger, unmarried populations, may experience concerns about future fertility, body image, and self-esteem, which can impact mental health outcomes. In terms of education, the mean level was 6.36 with a standard deviation of 0.774, on a scale that likely ranges from basic schooling to higher levels of education. This relatively high education level suggests that participants were capable of understanding the study materials, as a minimum educational level was set as an inclusion criterion. Education level can affect awareness of health issues, access to healthcare, and self-management practices in PCOS. The occupation score averaged 7.96 with a standard deviation of 2.170, suggesting a range in employment status, which could influence economic stability and healthcare access. Occupation often correlates with income, and financial security can significantly impact the ability to manage PCOS through lifestyle changes, medication, and regular medical visits. Income was represented with a mean of 10.54 and a standard deviation of 2.153, likely indicating income brackets. Higher income levels can afford better healthcare access, dietary options, and resources for managing PCOS. Conversely, lower-income women might face challenges in accessing specialized care or maintaining lifestyle changes, which can worsen PCOS symptoms.
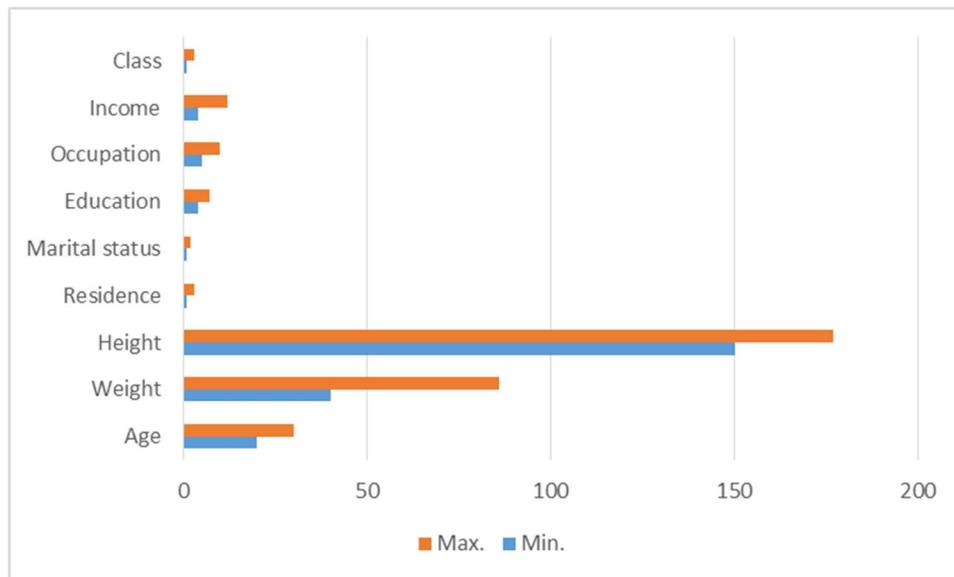

Figure 4: Representation of Socio demographic analysis min and max

Finally, socio-economic class had a mean score of 1.57 and a standard deviation of 0.662, indicating a diverse socio-economic background. Socio-economic status influences overall health, quality of life, and psychological well-being, all of which are relevant to PCOS management. Women from lower socio-economic backgrounds might experience additional stressors, impacting mental health. Overall, the socio-demographic characteristics provide a comprehensive understanding of the study's population, emphasizing the importance of contextual factors in PCOS research. Analyzing these factors can help identify potential barriers and facilitators in managing PCOS, guiding more effective,

tailored interventions for different demographic groups.

Table 3: Analysis of Anxiety

	Mild	**Moderate**	**Severe**
Group 1	43 (68.25%)	10 (15.87%)	10 (15.87%)
Group 2	59 (93.65%)	4 (6.34%)	0 (0%)
N = 126	102 (80.95%)	14 (11.11%)	10 (7.93%)

Table 3 presents the analysis of anxiety levels among study participants, divided into two groups: women with Polycystic Ovarian Syndrome (PCOS) (Group 1) and a control group of healthy women (Group 2). Anxiety levels are categorized as mild, moderate, and severe, highlighting the differences in psychological impact between women with and without PCOS. In Group 1, which includes women diagnosed with PCOS, the majority (68.25%) reported experiencing mild anxiety, with 15.87% experiencing moderate anxiety and another 15.87% experiencing severe anxiety. This distribution suggests that anxiety is a prevalent issue among women with PCOS, with nearly one-third of participants in this group experiencing moderate to severe levels of anxiety. The elevated anxiety in this group could be attributed to various factors associated with PCOS, including concerns over physical symptoms like weight gain, hirsutism, and irregular menstrual cycles, as well as worries about fertility and long-term health complications. The psychological burden of managing a chronic condition with visible symptoms may contribute significantly to heightened anxiety levels in this population.
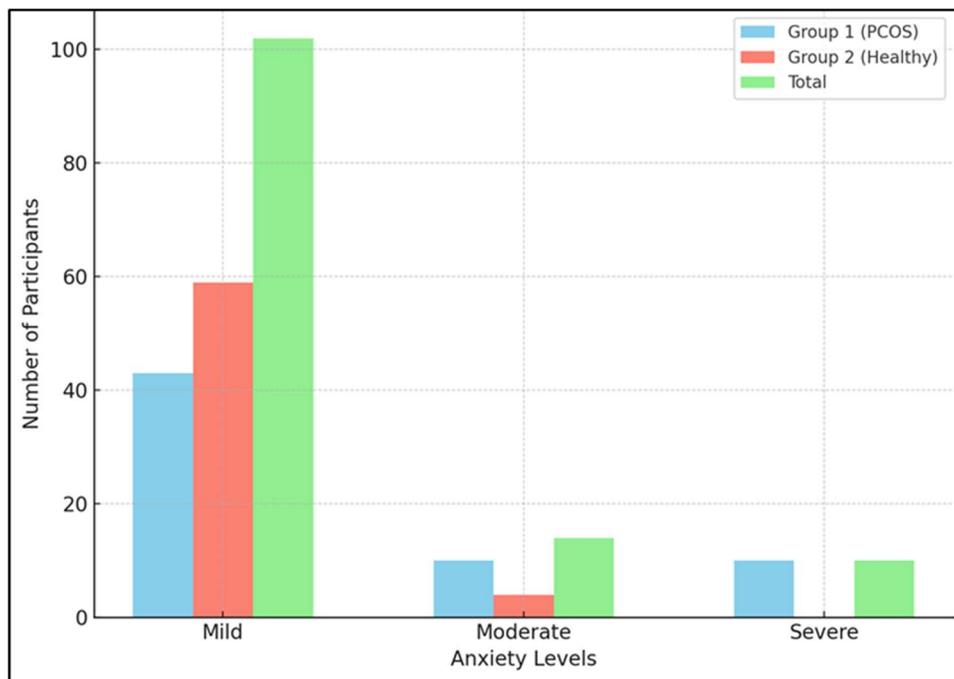

Figure 5: Representation of Analysis of Anxiety

In contrast, Group 2, the control group, shows a markedly different pattern. A vast majority (93.65%) of women in this group reported only mild anxiety, with only 6.34% experiencing moderate anxiety and none reporting severe anxiety. This lower anxiety profile in the control group suggests that women without PCOS generally experience lower levels of anxiety. This finding supports the hypothesis that PCOS is associated with higher anxiety levels, potentially due to the unique physical and psychological challenges it presents. When looking at the total study population (N = 126), 80.95% reported mild anxiety, 11.11% moderate anxiety, and 7.93% severe anxiety. These overall figures reflect the influence of the PCOS group on the study results, indicating that PCOS significantly affects mental health. The higher prevalence of moderate and severe anxiety in Group 1 compared to Group 2 underscores the importance of addressing mental health in women with PCOS as part of their treatment and management plans. This analysis highlights the need for integrated psychological support for women with PCOS. Healthcare providers should consider routine screening for anxiety in women diagnosed with PCOS to offer early interventions that may help alleviate the mental health burden associated with the disorder. Therapeutic approaches, such as counseling, stress management techniques, and support groups, could benefit women with PCOS, potentially reducing their anxiety levels and improving their overall quality of life.

6. Conclusion

This study highlights the significant psychological challenges faced by women with Polycystic Ovarian Syndrome (PCOS), particularly in terms of anxiety, depression, body image concerns, and self-esteem. The findings demonstrate that women with PCOS are more likely to experience elevated levels of anxiety and depression compared to healthy controls. The psychological distress observed is closely linked to the physical symptoms of PCOS, such as weight gain, hirsutism, and irregular menstrual cycles, which contribute to negative body image and lower self-esteem. Additionally, the study emphasizes that even women with a normal body mass index (BMI) but diagnosed with PCOS still report heightened anxiety and depression, indicating that psychological impacts go beyond just physical appearance. The data also underscore the importance of addressing mental health in PCOS treatment plans. The high prevalence of anxiety and depression among women with PCOS calls for integrated care that includes psychological support, alongside medical interventions targeting the physical symptoms of the disorder. Cognitive-behavioral therapy, counseling, and stress management techniques could be beneficial in alleviating some of the mental health burden experienced by women with PCOS. Furthermore, greater awareness and education about the mental health aspects of PCOS are needed, as many women may not seek help for psychological symptoms, focusing primarily on physical health concerns. In a holistic approach to PCOS care, encompassing both physical and psychological support, is essential for improving the quality of life of affected women. By addressing the mental health concerns related to PCOS, healthcare providers can offer more comprehensive and effective treatment, ultimately enhancing both the mental and physical well-being of women living with this condition.

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