

Polycystic Ovarian Syndrome: Breaking the Silence on the Hidden Challenges for Women

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ABSTRACT

Polycystic Ovary Syndrome (PCOS) is a complex endocrine disorder affecting women of reproductive age. This paper explores the multifaceted nature of PCOS, focusing on the physical, psychological, and emotional challenges experienced by affected women. PCOS has a variety of physical symptoms, such as irregular menstrual periods, hirsutism (excessive hair growth), acne, and weight gain. These physical symptoms have an effect on women's general health as well as the development of metabolic abnormalities including insulin resistance and a higher risk of cardiovascular disease. PCOS has significant psychological and emotional repercussions in addition to its physical symptoms. Studies reveal, women with PCOS have a greater prevalence of anxiety, sadness, and disordered eating habits. These psychological and emotional burdens can stem from the distress caused by the physical symptoms, body image concerns, difficulties in achieving fertility, and the psychosocial impact of living with a chronic condition. PCOS represents a complex interplay of physical, psychological, and emotional challenges for affected women. A comprehensive approach to PCOS management should address not only the physical symptoms but also the psychosocial aspects, including mental health and fertility concerns. Raising awareness, improving access to healthcare, and offering support networks are crucial steps towards enhancing the well-being and quality of life of women living with PCOS.

Keywords: *Polycystic Ovary Syndrome, Physical, Emotional, Psychological*

PCOS stands for Polycystic Ovary Syndrome, which is a common hormonal condition that affects women of reproductive age (Pasquali, 2018; Farooq, 2018). PCOS is a disorder in which the ovaries release an excessive amount of androgens (male hormones) which can interfere with the development and release of eggs from the ovaries. In PCOS, small cysts may also form in the ovaries, which can contribute to hormonal imbalances and affect the regularity of menstrual cycles. Several signs and symptoms, including irregular periods, weight gain, excessive face and body hair development, acne, and difficulties getting pregnant, are common in women with PCOS. It can also have significant long-term health implications, including an increased risk for developing diabetes, cardiovascular disease, and other metabolic disorders.

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Polycystic ovary syndrome (PCOS) is otherwise recognized as Stein Leventhal Syndrome, was first eulogized in 1935 (Stein & Leventhal, 1935). It is also known as polycystic ovary disease (PCOD). PCOS is a condition that deals with the hormonal state of women (Okoroh et al., 2012). It has a universally negative impact on women. Women can get PCOS throughout their child bearing years. It is the most severe and persistent hereditary hormonal and metabolic disorder that impacts women who are young (Chang, 2004). PCOS may contribute to long-term problems as well as other serious conditions including anxiety, depression (Cooney et al., 2017), menstrual irregularity (Ezeh et al., 2021), infertility (Deshpande & Gupta, 2019), body image issues (Alur-Gupta et al., 2019), eating disorders (Tay et al., 2019), hirsutism (Matheson & Bain, 2019) and acne (Ramezani et al., 2019). The condition persists in women from the time of adolescence till post-menopause. PCOS causes hair to grow on the face and body and can occasionally result in baldness.

The imbalance in hormones is a trigger that causes irregular menstrual cycles and complicates pregnancy. Generally, ovaries of a PCOS woman releases abnormal amount of hormones called androgens, which leads to reproductive hormonal imbalance in nature (Okoroh et al., 2012). As a result, women with PCOS frequently have unpredictable menstrual cycles, missed periods and uncertain ovulation. It is an obvious cause of infertility among women. It can also raise the risk for other health issues. PCOS seriously jeopardizes both maternal success rate and physical wellbeing.

Prevalence

The multi factorial disorder appears during puberty (Diamanti, 2009). It affects around 8 to 13 % of reproductive-age women globally (Strowitzki, 2021; Greenhill, 2018; Gibson et al., 2017 and Bozdog et al., 2016). It is estimated that 21% of Americans have polycystic ovaries. (Wolf et al., 2018). In India PCOS affects 2.2% to 26% of women (Nidhi & Padmalatha, 2011). During adolescence PCOS becomes symptomatic and at least 5% of reproductive-age women are affected from this disorder (Ding et al., 2018). According to the self-reported questionnaire, the prevalence of PCOS in India is roughly 6%. It is also noted that the incidence rate in urban areas is larger than in rural areas. According to the poll, 90.24% of females in urban areas were aware of PCOS, but just 8.34% of rural dwellers knew about it. They have also reported that PCOS is more prevalent in India than US (Bharathi et al., 2017).

Objective

To understand how the severity of various PCOS symptoms may profoundly impact the psychological, emotional, and physical well-being of affected women.

Physical Problems

Nowadays, PCOS is a condition that affects quite a number of women. However, some women might not even experience any of the symptoms, making a diagnosis difficult. Early detection of the symptoms can lead to more effective symptom management. Polycystic Ovary Syndrome can cause a range of physical problems, including:

- **Irregular periods:** As a result of their unpredictable menstrual cycles, women with PCOS sometimes have trouble predicting ovulation and making pregnancy plans.
- **Ovarian cysts:** The formation of small cysts on the ovaries is a common characteristic of PCOS. While these cysts are usually harmless, they can cause discomfort and pain.

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- **Excess hair growth:** Women with PCOS may experience excess hair growth on the face, chest, abdomen, or back due to the elevated levels of androgens in the body.
- **Acne:** Elevated levels of androgens can also cause acne to develop, especially around the chin and jawline.
- **Weight gain:** Women with PCOS may be more likely to gain weight and struggle with obesity, which can increase the risk for other health problems.
- **Skin tags:** Small, soft growths on the skin, known as skin tags, may develop in areas where skin rubs together.
- **Sleep apnea:** PCOS can also increase the risk of developing sleep apnea, a condition that causes breathing to stop and start during sleep.

Women who have this medical condition may be more prone to a number of illnesses, such as type II diabetes, cancer, obesity, metabolic syndrome, insulin resistance, infertility, and mental health issues. (Hayek et al., 2016; Hart & Doherty, 2015). PCOS leads to secretion of excess androgens particularly from the ovaries and it is also associated with lack of ovulation, irregular menses, hirsutism, resistance to insulin, moderate to severe acne, obesity and metabolic issues (Ramezani & Amiri, 2019; Pfeifer & Kives, 2009) and is a rather frequent disorder among adolescent girls. Common clinical symptoms such as hirsutism and menstrual abnormalities are not generally present until late adolescence (Driscoll, 2003). Several cysts are reported to develop in female ovarian antral follicles as a result of an imbalance of female sex hormones (Ajmal, Khan & Shaikh, 2019; Patel, 2018; Meier, 2018).

Women who are overweight or obese may experience worsening of their PCOS symptoms. According to a report, 70–74% of PCOS patients are obese, indicating a significant level of unhappiness with their physical appearance (Yildiz, Knochenhauer & Azziz, 2008). In PCOS patients, a relationship has been marked between physical obesity and depressive symptoms. (Yin et al., 2021; Chaudhari, Mazumdar, & Mehta, 2018). Infertility, abnormal hormone levels, particularly androgens, obesity and related disorders including metabolic syndrome, body image concerns, and poor self-esteem are among the variables influencing sexual functioning in PCOS women (Zhao et al., 2019).

Psychological symptoms

Polycystic Ovary Syndrome (PCOS) can also cause a range of psychological problems, including:

- **Anxiety and depression:** Women with PCOS may be more likely to experience anxiety and depression, possibly due to the hormonal imbalances and physical symptoms associated with the condition.
- **Body image concerns:** The excess hair growth, weight gain, and acne associated with PCOS can affect a woman's self-esteem and body image, leading to feelings of shame, embarrassment, and social isolation.
- **Eating disorders:** Women with PCOS may be more likely to develop disordered eating patterns, such as binge eating or restrictive eating, as a way to cope with the physical and emotional challenges of the condition.
- **Reduced quality of life:** PCOS can have an effect on a woman's relationships, career, and general feeling of wellbeing, among other areas of her life. This may result in a lower degree of life satisfaction and a poor quality of life.
- **Infertility-related stress:** PCOS is one of the leading causes of infertility in women, and the difficulty of becoming pregnant can cause significant stress, anxiety, and depression.

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Women with PCOS have a greater risk of a variety of clinical psychological issues than other women (Brutocao et al., 2018; Cesta et al., 2016). PCOS may also raise the risk of other mental health problems i.e. obsessive compulsive disorder (OCD), bipolar disorder, and eating disorders (Brutocao et al., 2018; Damone et al., 2019; Cooney et al., 2017). A population-based study conducted in Sweden discovered that 22.4% of the 22,385 women with PCOS had had at least one lifetime mental diagnosis (Ibáñez et al., 2017).

Younger women are more affected with PCOS. Women with PCOS often face the trouble of swelling in body and prolonged swelling or inflammation is associated with high levels of cortisol, later it leads to stress and depression. Increased amount of cortisol also leads to the risk of insulin resistance, which in turn is the main root of depression. Obesity is often regarded as the cause of depression, so women with PCOS who are obese, are mostly vulnerable to depression.

Women suffering from PCOS are more vulnerable to anxiety and depression. They frequently experience stress due to the physical manifestations of the condition, such as excessive face and body hair; this chronic stress can induce depression and anxiety. Research evidence revealed that PCOS has harmful impact on the psychological well-being of women. Women suffering from PCOS are more vulnerable to mental health issues like anxiety, depression, sadness and loneliness (Barry, Qu & Hardiman, 2018; Podfigurna et al., 2015). Depression and anxiety symptoms are prevalent among women with PCOS. (Hoeger, Dokras, & Piltonen, 2021). Some studies reported anxiety is more prevalent among women with PCOS (Chaudhari, Mazumdar, & Mehta, 2018). Anxiety and depression diagnoses are around three times more common in PCOS women than women without PCOS. (Brutocao et al., 2018 and Blay, Aguiar & Passos, 2016). Women with PCOS are also significantly more likely to report anxiety and depression symptoms, and those feelings are far more likely to be severe (Brutocao et al., 2018; Cooney et al., 2017; Damone et al., 2019; Berni et al., 2018).

Although this is unclear, the prevalence of eating disorders appears to be greater in the PCOS group (Dokras et al., 2018; Cesta et al., 2016). It is yet unclear how PCOS and eating problems may be related. However, women with PCOS have a high prevalence of these risk factors. Research suggests that women with PCOS have four times higher risk of developing binge eating disorder and bulimia nervosa (Lee, 2017). Women with PCOS are more likely to be overweight or obese. In order to compensate for their compulsive eating, individuals engage in a variety of eating habits, including frequent dieting, skipping meals, eliminating a food category from their diets to lose weight, obsession with food, calorie tracking, excessive exercise, and frequent fasting.

Women with PCOS seem to be more concerned about their weight and to value and evaluate their looks and health less (Deeks et al., 2011). These characteristics are associated with an increased risk of anxiety and depression. A substantial amount of mental discomfort may be brought on by the clinical symptoms of hirsutism, acne, alopecia, and seborrhea as well as obesity and infertility (Veras et al., 2011; Himelein & Thatcher, 2006). The physical, physiological, and psychological changes can cause mood disorders, which can also have serious negative effects on quality of life, lower self-esteem, and marital and social maladjustments. (Jones, Hall & Ledger, 2008; Hahn et al., 2005)

A person's perception of their place in life in relation to their goals, expectations, standards, and worries, as well as the culture and value systems, in which they live, is referred to as their quality of life. Women with PCOS have reported lower quality of life than other women

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(Behboodi Moghadam et al., 2018). Obesity affects almost half of all women by PCOS (Sam, 2007). Obesity has been considered as a possible explanation for why women with PCOS have higher rates of anxiety, depression and poor quality of life than other women (Teede et al., 2018; Panico et al., 2017). PCOS patients have considerably poor quality of life scores than other women (Dokras et al., 2018; Jones et al., 2008). Obesity, hyperandrogenism, PCOS-related problems, and depression all appear to have a significant influence on these patients' quality of life (Sidra et al., 2019).

Emotional symptoms:

Polycystic Ovary Syndrome (PCOS) can also cause a range of emotional problems, including:

- **Stress:** The physical symptoms of PCOS, such as irregular periods, acne, and hair growth, can cause stress and anxiety. Additionally, the pressure to conceive or manage weight can also cause emotional distress.
- **Frustration:** Women with PCOS may feel frustrated with the unpredictable nature of their menstrual cycles and may feel frustrated about their inability to conceive or maintain a healthy weight.
- **Low self-esteem:** Physical symptoms of PCOS, such as weight gain and excess hair growth, can lead to negative self-perception and low self-esteem.
- **Guilt:** Women with PCOS may feel guilty about their inability to conceive or the impact of the condition on their relationships and personal life.
- **Isolation:** The physical and emotional symptoms of PCOS can lead to social isolation and feelings of loneliness.
- **Anger:** Women with PCOS may feel angry or resentful about the condition and its impact on their lives.

Many women having PCOS often battle with frequent mood swings. Some people struggle with mild mood disorders including impatience, tiredness, and a short temper. The fact that PCOS may make a woman feel physically and emotionally uncomfortable, insecure, or unfeminine makes the problem worse. Mood swings or emotional instability are mostly seen in women with PCOS due to hormonal fluctuations. This is because our body and mind are interlinked, so any changes in one can affect the other. Irritability is a symptom of mood swings, and many PCOS women experience it during their menstrual cycle. Women's social relationships are impaired as a result of this annoyance and discomfort since they find it difficult to explain their thoughts and feelings to others. PCOS not only have biological consequences but also consequences related to psychology and society.

Mood swings can be described as sudden and frequent changes in emotions that can lead to irritability, anger, sadness, and anxiety, often caused by hormonal imbalances. While mood swings are a common experience for many people, women with conditions such as PCOS may experience more frequent and intense mood swings that can negatively impact their work, relationships, and overall quality of life. Severe and prolonged changes in mood can also occur. It's not uncommon for women with PCOS to feel anger towards the condition, as it can have a significant impact on their lives. They may also feel frustrated that their diagnosis was delayed, and that their self-image was affected for years. It's important to accept and acknowledge these feelings, as a PCOS diagnosis is already challenging enough without having to worry about one's emotional reactions.

An overview

PCOS is a condition that primarily affects women of reproductive age and can have lifelong implications. One of the challenges in managing this condition is the lack of clear diagnostic criteria and the complex nature of its various characteristics. To better understand PCOS and develop effective preventive and treatment strategies, further research into the genetic and pathophysiological factors that underlie the condition is needed. By identifying risk factors and developing targeted interventions, we can improve outcomes for women with PCOS and help them manage the challenges that come with this syndrome.

The main objective of this report is to examine how the various symptoms of PCOS can have a significant impact on the physical and psychological well-being of affected women. To achieve this, we have categorized the consequences of PCOS into three subheadings. The first category is the physical consequences which include irregular menstrual cycles, acne, hair loss, pain, weight gain, and other related symptoms. The second category is the psychological consequences, which include anxiety and depression. The final category is the emotional consequences, which encompass mood swings. By exploring the impact of these symptoms on women with PCOS, we hope to gain a better clarity and understanding of the condition and its effects on those who experience it.

PCOS is a common condition that affects many women during their reproductive years. The condition has a range of different symptoms, including reproductive, metabolic, and cardiovascular problems. One of the primary goals of treatment for many women with PCOS is to increase their fertility. In addition to this, it is also important to focus on lifestyle changes and achieving psychological stability. These objectives are crucial in helping women manage the condition and improve their overall quality of life.

CONCLUSION

PCOS is a complex and multifaceted condition that can have significant impacts on the physical, psychological, and emotional well-being of affected women. The symptoms of PCOS can be diverse and can vary in severity, making diagnosis and management challenging. To effectively address the challenges of PCOS, a multidisciplinary approach that includes medical, lifestyle, and psychological interventions is often required. Through a better understanding of the pathophysiology and genetics of PCOS, and by identifying effective prevention and treatment strategies, we can improve outcomes for women with this condition and enhance their quality of life. It is our hope that continued research into PCOS will lead to improved understanding, management, and ultimately ensure a better quality of life for those affected by this condition.

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Conflict of Interest

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