

Impact of Polycystic Ovary Syndrome (PCOS) on Mental Well-Being and Self-Esteem among Women in India

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ABSTRACT

Polycystic Ovary Syndrome (PCOS) refers to the common hormonal disorder that affects the ovaries of a woman typically during their reproductive years. Polycystic ovary syndrome (PCOS) is a medical condition that results from an imbalance of androgens, which leads to an irregular menstrual cycle and can make conception more challenging. Symptoms of PCOS include the presence of ovarian cysts, irregular periods, and excessive hair growth on the face and body. Management of the condition often involves the use of hormonal birth control and the diabetes medication Metformin. This study investigates the relationship between Polycystic Ovary Syndrome (PCOS) and Mental Health and Self-Esteem. The study included 30 women with PCOS for a Semi-structured interview and also the administration of two questionnaires- Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS) and Rosenberg's Self-Esteem Scale. The interviews were interpreted using Thematic Analysis and the questionnaires were evaluated with SPSS. The four major themes were: (1) Stress and Irregular Menstrual Patterns; (2) Lower Self-esteem due to Weight Fluctuations; (3) Good Social Support; (4) A strong Need for Better Psychological Care. The results show a strong positive correlation between Mental well-being and Self-Esteem therefore affecting women with PCOS strongly. The study highlights the urgent need to address the psychological needs of women with PCOS, promote constructive familial support, and develop interventions to alleviate emotional and psychological distress.

Keywords: *Polycystic Ovary Syndrome, Women, Self-Esteem, Mental Well-Being*

Polycystic Ovary Syndrome (PCOS) refers to the state in which the ovaries induce an unusual proportion of androgens (male sex hormones) that are usually present in the women's bodies in small amounts. The name Polycystic Ovary Syndrome (PCOS) comes from the numerous small cysts often in the form of fluid-filled sacs that form in the Ovaries. The sacs contain an immature egg that never matures enough for ovulation to take place. This lack of ovulation disrupts the female hormones and therefore gives rise to higher than-required amounts of androgens in the body. PCOS is a "syndrome" or group of symptoms that affect the ovaries and the ovulation cycle of a woman.

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Impact of Polycystic Ovary Syndrome (PCOS) on Mental Well-Being and Self-Esteem among Women in India

Polycystic Ovary Syndrome (PCOS) affects an estimated 8-13% of women in the reproductive age group and up to 70% of the women are still living with PCOS undiagnosed globally (WHO, 2023).

History of PCOS:

- a. Early Observations (Stein and Leventhal, 1935): The word PCOS was first coined by the two American gynaecologists Irving F. Stein and Michael L. Leventhal in the year 1935. Reports say that a group of women went to the two doctors with complaints about having no menstruation cycles and also having enlarged ovaries and symptoms of excess production of androgens. It was also found that these women often struggled with conceiving a child.
- b. Name and Diagnostic Criteria (1990s): Initially PCOS was named the Stein-Leventhal Syndrome. However, as the technology and research progressed further it was changed to Polycystic Ovary Syndrome to better reflect the features of the syndrome.
- c. Increased Awareness (Late 20th Century): This period of research saw a rise in the understanding of hormonal imbalances and metabolic issues that take place with PCOS.
- d. Insulin Resistance Connection (1990s-2000s): Often insulin resistance results in an increased prevalence of androgen levels in women with PCOS. Therefore, this area was thoroughly researched in the 1990s and 2000s.
- e. Rotterdam Criteria (2003): In 2003, during a workshop at Rotterdam it was announced that if a woman meets with 3 of the following given points she can be diagnosed with PCOS.
 - Absence of menstrual cycle or anovulation
 - Presence of increased levels of androgens
 - Presence of cysts in the ovaries
- f. Ongoing Research (Present): Significant strides have been made in understanding PCOS, with ongoing research revealing crucial insights into its genetic components, environmental factors, and long-term health implications. In today's day and age, PCOS has gained recognition as one of the most common endocrine disorders affecting women of reproductive age. There is a range of treatments available to alleviate the pain experienced by women with PCOS, including the use of Metformin or anti-androgen medications. Lifestyle interventions such as maintaining a healthy diet and regular exercise can also be beneficial. Additionally, fertility treatments have advanced significantly for women with PCOS who are seeking to conceive.

Types of PCOS:

Various Researchers have investigated several types of PCOS, categorised into different types based on an individual's predominant symptoms. The types are as follows:

- a. Insulin Resistant PCOS: Insulin refers to the hormones that regulate one's glucose levels also known as blood sugar. This type of PCOS occurs when the cells of an individual's body don't respond to insulin therefore causing an excess and making the body impaired in insulin. This is the most common type of PCOS found in women, affecting 70% of the women diagnosed with the condition.
- b. Adrenal PCOS: Adrenal PCOS occurs when the adrenal glands produce hormones like cortisol and norepinephrine (adrenalin) in excess amounts which also results in overproduction of androgens.
- c. Inflammatory PCOS: A particular subtype of Polycystic ovary syndrome (PCOS) is influenced significantly by inflammation in its progression. Those with PCOS

Impact of Polycystic Ovary Syndrome (PCOS) on Mental Well-Being and Self-Esteem among Women in India

tend to have elevated levels of inflammatory markers in their blood, which can result in several problems like acne and irregular menstrual cycles.

- d. Post-Pill PCOS: Often taking Contraceptive pills can also lead to PCOS. In some cases, if an individual stops taking the pill it can lead to having PCOS-like symptoms.

Symptoms of Polycystic Ovary Syndrome:

- Hair Loss
- Excess face and body hair
- Oily Skin and Acne
- Weight Gain
- Mood Changes
- Darkening of the skin
- Male pattern baldness
- Ovarian Cysts

Mental Well-being refers to a state of emotional and psychological health where individuals feel a sense of contentment, fulfilment, and resilience in facing life's challenges. It incorporates factors such as: having a positive self-esteem, effective coping mechanism with stress, maintaining healthy relationships and experiencing a sense of purpose and meaning in life. Mental well-being also includes good emotional stability, the ability to adapt to change and satisfaction with one's own life. Indulging oneself in regular self-care practices, seeking support in times of need, and taking part in recreational activities can contribute to maintaining good mental health.

Self-esteem is an essential aspect of a person's identity. It reflects their overall sense of self-worth, which is influenced by their thoughts, experiences, and relationships with culture, religion, and societal status. Self-esteem has a broad impact on one's life, affecting their emotional state, behaviour and decision-making. Those who possess high self-esteem are more likely to experience positive emotions, such as happiness, confidence and optimism. They are more inclined to confront challenges, persevere through difficulties and take initiative to achieve their objectives. On the other hand, people who have low self-esteem tend to feel sadness, anxiety and lack of confidence frequently. They may also engage in self-destructive behaviour, avoid taking risks and struggle to assert themselves. Mental health problems such as depression and anxiety disorders can also be exacerbated by low self-esteem.

Relationship between Polycystic Ovary Syndrome with Mental Well-being and Self-esteem- Polycystic Ovary Syndrome (PCOS) is a multifaceted endocrine disorder that affects countless women globally. It manifests as hormonal imbalances, irregular menstrual cycles, and the development of cysts on the ovaries. Beyond the physical implications, PCOS can significantly impact mental health and confidence levels. The syndrome frequently presents psychological challenges such as apprehension, despondency, and grievances regarding body image. The distress caused by symptoms such as excessive hair growth, acne, and weight gain can significantly impact a woman's self-perception, leading to feelings of inadequacy and low self-esteem. The uncertainty surrounding fertility and potential difficulties in conceiving can worsen emotional distress, putting additional strain on mental health. Effective management of PCOS requires not only addressing physical symptoms but also

Impact of Polycystic Ovary Syndrome (PCOS) on Mental Well-Being and Self-Esteem among Women in India

providing comprehensive support for mental health and self-esteem. Psychoeducation, counselling, and support groups tailored to women with PCOS can play vital roles in promoting resilience, empowering individuals to navigate the emotional challenges associated with the condition, and fostering a positive sense of self-worth and well-being.

REVIEW OF LITERATURE

Huddleston et al. (2024) investigated productivity loss that happens due to Polycystic Ovary Syndrome and its relationship with race and mental health. The focus group of the study was North American women with PCOS. The results conclude that a large majority of women skip work due to PCOS and this in turn also affects their quality of work. Some also felt PCOS was one of the major reasons they felt lagging at work.

Sourouni et al. (2024) researched the unmet needs of women with Polycystic Ovary Syndrome in the context of their Mental Health. The paper evaluates the kind of care that is provided by doctors to women diagnosed with PCOS. The results show that various mental health issues were highlighted, such as a lot of women reporting body image issues, poor eating habits and also low emotional well-being.

Kite et al. (2024) examined the relationship between Polycystic Ovary Syndrome and the health-related quality of life. The paper aimed to understand the significant impact of PCOS in terms of health-related quality of life in women of reproductive age. The results prove that women diagnosed with PCOS and who also have higher weight have a poorer quality of life as compared to women who do not have PCOS.

Wang et al. (2023) explored the experience of how women deal with mental health post-diagnosis of Polycystic Ovary Syndrome. The research was conducted with the help of a semi-structured interview and was analyzed by using thematic analysis. The themes found were as follows- having PCOS resulted in negative mental health status, the influence of a strong family network and the need for better psychological care for women with PCOS.

Yadav et al. (2023) reviewed the topic of the economic burden that comes with Polycystic Ovary Syndrome. It is a fact backed by research that one in every seven women experiences polycystic ovary syndrome (PCOS). This condition causes an enormous economic burden of \$21 billion in the United States alone. The results show that comorbidities of PCOS such as anxiety, eating disorders and postpartum depression add a total of an additional 4.2 billion dollars to the cost of the treatment of PCOS.

Pringle et al. (2022) researched the effect of childhood maltreatment on women's reproductive health, especially women with PCOS. The results reveal that emotional abuse was reported as the highest reason for childhood maltreatment in women with PCOS. Physical abuse also accounted for a certain percentage of childhood maltreatment.

Burnatowska et al. (2022) investigated the relationship between Emotional Eating and Binge eating disorders and nighttime eating present in women with PCOS. Emotional eating (EE) and eating disorders (EDs) such as binge eating disorder (BED), addictive eating, and night eating syndrome (NES) are primary causes of obesity. These disorders are caused by impaired function of the reward system. Women with obesity and PCOS are at a greater risk of developing or exacerbating these disorders due to depression and anxiety related to

Impact of Polycystic Ovary Syndrome (PCOS) on Mental Well-Being and Self-Esteem among Women in India

hirsutism and fertility disturbances. It is crucial to identify and address the underlying emotional and psychological factors to effectively manage obesity in women with PCOS.

Rao et al. (2022) experimented research on ethnic Indian women living with PCOS. The study reported that women who live outside India find it hard to lose weight and also have very less satisfaction to factors of weight loss such as: Food, Exercise etc. The research also pointed out that women tend to get delayed diagnosis which tends to further delay in seeking the correct professional help required by the woman.

Sulaiman et al. (2022) analyzed the psychological burden on women diagnosed with PCOS. The study aimed to investigate the sociodemographic and clinical burden of women with PCOS. The data indicates that PCOS women experience higher levels of stress, anxiety, and depression compared to non-PCOS women. Notably, mild and severe depression were found to be significantly higher among PCOS women than their non-PCOS counterparts.

Karsten et al. (2021) examined the role of PCOS in sexual functions in women with PCOS and infertility. Studies consistently demonstrate that women who suffer from PCOS experience significantly poorer mental health. They exhibit higher levels of anxiety and depression, which inevitably leads to a lower quality of life, and have impaired sexual function compared to women without PCOS. The results of this research conclude that women with PCOS and also suffering from obesity do not have a significant relation to impaired sexual functions. However, the participants did score low on the physical and mental quality of life subscales

Patten et al. (2021) reviewed the effectiveness of exercise interventions on mental health and health-related quality of life in women diagnosed with PCOS. In today's time, physical health benefits of exercise for women with PCOS are increasingly getting known are providing relief in alleviating symptoms of the condition. The research concludes that Exercise plays a big role in showing positive improvements in one's quality of life.

Wen et al. (2021) analyzed the results of the effect of acupuncture and metformin on insulin resistance PCOS. The study aimed to understand how acupuncture or metformin works more effectively on women who are diagnosed with PCOS and insulin resistance. The study was carried out over 4 months where they were administered with small dosages of metformin and were given acupuncture sessions. The results show that metformin was more effective in relieving the symptoms of PCOS as compared to just acupuncture.

Tay et al. (2020) investigated adverse childhood experiences and their effect on Polycystic Ovary Syndrome along with psychiatric comorbidities. Results prove that women with PCOS report a higher number of psychiatric illnesses making them more vulnerable as compared to women without PCOS. PCOS was significantly associated with Anxiety, depression and Post-traumatic Stress Disorder. The study found that ACES had the strongest correlation with psychiatric disorders, providing strong evidence that PCOS is a complex disorder affecting reproductive, metabolic, and psychological aspects of health. Therefore, it is crucial to assess the psychological well-being of women with PCOS, as recommended by guidelines.

Oberg et al. (2020) published research on the psychological well-being and personality of weight loss when diagnosed with PCOS. The results conclude that the majority of the women have severe to moderate levels of distress when it comes to weight loss. It was also noted that

Impact of Polycystic Ovary Syndrome (PCOS) on Mental Well-Being and Self-Esteem among Women in India

psychological well-being is affected to great lengths by women who are overweight and also diagnosed with PCOS.

The Rationale of the Study:

- Polycystic ovary syndrome (PCOS), a hormonal disorder commonly found in women, exhibits varying prevalence rates worldwide. Research indicates that South Asian populations, particularly in India, show a higher incidence of this syndrome than their Western counterparts. Given the distinct cultural, societal, and healthcare system factors that may impact women's experiences, it is essential to comprehend how PCOS affects mental health and self-esteem in this demographic.
- Sociocultural Factors: It is important to address the cultural norms surrounding womanhood, fertility, and marriage in India, which can affect women with PCOS. By increasing awareness and understanding, we can work towards reducing the stigma and pressures that women face. Empowering women to make informed decisions about their health and fertility can also help to alleviate stress and improve self-esteem. Together, we can create a more supportive and inclusive environment for women living with PCOS.
- Limited Awareness and Access to Healthcare: In India, there is a need to improve awareness about Polycystic Ovary Syndrome (PCOS) and its management strategies, particularly in rural areas. This can help in early diagnosis, providing better treatment, and reducing psychological distress among affected women. Therefore, it is essential to examine the relationship between PCOS awareness, healthcare access, and mental well-being to develop targeted interventions. By doing so, we can address the issue of limited awareness and improve the quality of life of women with PCOS.
- Psychological Symptoms: Polycystic Ovary Syndrome (PCOS) can cause psychological symptoms, such as depression, anxiety, mood swings, and body image issues for women. These symptoms can have a significant impact on their quality of life, relationships, and overall well-being. Therefore, it's important to investigate the prevalence and severity of these symptoms among Indian women with PCOS to develop effective psychosocial interventions. By doing so, we can provide better support for women with PCOS.
- Self-esteem and Body Image: PCOS can cause weight gain, acne, and hirsutism, which negatively impact body image and self-esteem. Women with PCOS may experience feelings of inadequacy and low self-worth due to the social pressure on physical appearance. Understanding the relationship between PCOS symptoms, body image dissatisfaction, and self-esteem is crucial for promoting well-being.

METHODOLOGY

Aim:

To study the impact of Polycystic Ovary Syndrome (PCOS) on Mental Wellbeing and Self-Esteem among Women in India.

Objectives:

1. To investigate the relationship between Polycystic Ovary Syndrome (PCOS) and Mental Wellbeing among Women
2. To investigate the relationship between Polycystic Ovary Syndrome (PCOS) and Self-Esteem among Women

Impact of Polycystic Ovary Syndrome (PCOS) on Mental Well-Being and Self-Esteem among Women in India

Hypotheses:

1. There will be a significant relationship between Polycystic Ovary Syndrome (PCOS) and Mental Well-being among Women
2. There will be a significant relationship between Polycystic Ovary Syndrome (PCOS) and Self-Esteem among Women.

Sample Taken:

A stratified sample of 30 participants with women with PCOS, falling within the age range of 18-30 years was chosen. The Sample collection was conducted by taking a semi-structured interview of the experiences of women diagnosed with PCOS and two questionnaires were administered to study the aspects of Mental well-being and Self-Esteem. The recruitment process involved obtaining informed consent from the participants, who were assured of the voluntary nature of their participation. Confidentiality and ethical guidelines were rigorously adhered to throughout the research process. The Data collected was anonymised to protect the participant's identities.

Variables:

1. Independent Variable:
 - Polycystic Ovary Syndrome
2. Dependent Variables:
 - Mental Well-Being
 - Self-Esteem

Tools Details and Description:

Warwick-Edinburgh Mental Wellbeing Scale (WEMBS):

- a. About the test-** The Warwick-Edinburgh Mental Wellbeing Scale is a 14-item self-report measure for Mental Wellbeing. It was developed by Tennant et al in 2007.
- b. Reliability-** The WEMBS has highly consistent results. The test-retest reliability at one week was high at 0.83.
- c. Validity-** WEMBS shows good content validity.
- d. Scoring-** The items are rated on a 5-point Likert Scale, from 1 (none of the time) to 5 (all of the time). The total score for the WEMBS is calculated by summing the scores for all 14 items. The higher the total score, the higher the individual's mental well-being.

Rosenberg Self-Esteem Scale (RSES):

- a. About the Test-** The Rosenberg Self-Esteem Scale (RSES) is a 10-item self-report measure of global self-esteem. It was developed by Morris Rosenberg in 1965.
- b. Reliability-** The RSES has high internal consistency (Cronbach's alpha = 0.85) and test-retest reliability (r = 0.80). This refers to the that the scale has a consistent measure of self-esteem.
- c. Validity-** The RSES has been shown to correlate with other measures of self-esteem like the Coopersmith Self-Esteem Inventory and the Tennessee Self-Concept Scale. This suggests that the RSES is a valid measure of self-esteem.
- d. Scoring-** The items are rated on a 4-point Likert Scale, ranging from 1 (Strongly disagree) to 4 (Strongly agree). Items 2,5,6,8,9 are reversed scored. The total score

Impact of Polycystic Ovary Syndrome (PCOS) on Mental Well-Being and Self-Esteem among Women in India

for the RSES is calculated by summing the scores for all 10 items. The higher the total score is the higher an individual's self-esteem.

Data Collection Procedure

Data for the research was collected by conducting a semi-structured interview from a stratified sample of 30 women diagnosed with PCOS ranging from the age of 18 to 30. Additionally, two questionnaires were administered to understand the other variables of Mental well-being and Self-Esteem by using the Warwick-Edinburgh Mental Wellbeing Scale and Rosenberg's Self-Esteem Scale. The data collection process carefully took care of the participant's informed consent, anonymization of responses, and strict adherence to ethical guidelines to ensure participant privacy and confidentiality.

RESULTS

Table 1: The table shows codes and themes-

CODES	THEMES
Irregular Menstruations, Stressful environments, Low mental health, Burnout	Anxiety and Depression
Weight Gain, Acne, Body Hair, Comments by family, Feelings of Inadequacy	Low Self-Esteem
Infertility, Societal perception, Reproductive health, Conceiving issues	Societal pressure on women to have children
Poor Diet, No exercise, Poor Sleep Quality, Chronic Fatigue	Disturbed/Fluctuating Lifestyles
Lack of Empathy, More Sensitivity, Psychological Care, Lack of Awareness, Misconceptions, Psychoeducation	Need for better Psychological Care, Need for mental health care

Polycystic Ovary Syndrome (PCOS) is a prevalent endocrine disorder among women that affects their physical and psychological well-being, particularly in India where societal norms exacerbate existing challenges. Women with PCOS encounter anxiety, depression, low self-esteem, societal pressures regarding motherhood, and a need for enhanced psychological care.

PCOS is a prevalent condition among women that is correlated with heightened levels of anxiety and depression. Hormonal imbalances and physical symptoms associated with PCOS, such as irregular menstruation, weight gain, and hirsutism, contribute significantly to emotional distress. Moreover, the uncertainty surrounding fertility and the fear of infertility can amplify these psychological challenges.

Unfortunately, mental health awareness and access to professional help are limited in India, where many women with PCOS struggle to cope with these conditions effectively.

Women with PCOS often experience lowered self-esteem due to the impact of physical symptoms on body image and societal beauty standards. The stigma associated with conditions like weight gain and excessive hair growth further diminishes self-confidence. In a culture that places immense value on appearance and conformity, women with PCOS may internalize feelings of inadequacy and face difficulties in asserting themselves in various spheres of life.

Impact of Polycystic Ovary Syndrome (PCOS) on Mental Well-Being and Self-Esteem among Women in India

In India, societal expectations regarding marriage and motherhood are deeply ingrained. Women with PCOS may face heightened pressure to conceive, exacerbating their anxiety and distress. The inability to fulfil these expectations can lead to feelings of failure and inadequacy, affecting their mental health and overall well-being.

Polycystic ovary syndrome (PCOS) can be a challenging condition to manage. However, with proper care and support, women can adapt to the symptoms and lead fulfilling lives. By seeking medical attention and adopting lifestyle changes, women can manage the symptoms of PCOS and maintain stable work or educational commitments. With self-care practices like exercise, healthy eating, and stress management techniques, women can reduce the impact of fatigue and mood swings on their social relationships and personal fulfilment.

PCOS management in India requires comprehensive care that addresses both physical and mental health needs. This involves increased awareness among healthcare professionals about the psychological impact of PCOS, improved access to mental health services, and tailored interventions that empower women to manage their condition. Community support groups and online forums can provide valuable emotional support for women with PCOS in India.

Table 2: Correlation values between Mental Wellbeing and Self-Esteem among women with PCOS

Variable	N	r	p
Mental Well-Being	30	0.446	Sig*
Self-Esteem	30		
Total	30		

Significant at 0.05 level

Table 2 indicates a correlation coefficient of 0.446 suggesting a moderate positive correlation between "Mental Well-being" and "Self-Esteem". It's worth noting that individuals who report higher levels of mental well-being also tend to report higher levels of self-esteem, and this suggests that both mental well-being and self-esteem can be nurtured and improved together. Research consistently indicates a strong correlation between mental well-being and self-esteem among women with PCOS. The hormonal imbalances and physical symptoms associated with PCOS, such as irregular menstruation, weight gain, and hirsutism, can contribute to psychological distress, including anxiety and depression. These mental health challenges often erode self-esteem, leading to feelings of inadequacy, worthlessness, and body dissatisfaction.

Table 3: The Table shows the Mean, Median, Mode of Mental Well-Being and Self-Esteem

		Mental Wellbeing	Self Esteem
N	Valid	30	30
	Missing	1	1
Mean		41.30	15.50
Median		43.00	16.00
Mode		33 ^a	16

a. Multiple modes exist. The smallest value is shown

The above table supports the correlational value and therefore supports the importance of the correlated values. Calculating the mean, median, and mode of mental well-being scores

Impact of Polycystic Ovary Syndrome (PCOS) on Mental Well-Being and Self-Esteem among Women in India

among women with PCOS is crucial to getting a comprehensive understanding of the average, middle, and most frequent levels of mental health within the sample. A higher mean mental well-being score suggests that the group has a generally positive mental health outlook, while a lower mean may indicate a higher level of psychological distress. The median mental well-being score represents the midpoint of the distribution and offers insight into the typical mental health status experienced by women with PCOS. Identifying the mode is essential as it highlights the most prevalent mental well-being score, indicating the most common level of mental health within the group.

DISCUSSION

This research paper aimed to study the impact of Polycystic Ovary Syndrome (PCOS) on Mental Well-being and Self-Esteem among Women in India. A stratified sample of 30 participants with women with PCOS, falling within the age range of 18-30 years was chosen. The Sample collection was conducted by taking a semi-structured interview of the experiences of women diagnosed with PCOS and two questionnaires were administered to study the aspects of Mental well-being and Self-Esteem.

Table 1 explains the themes of the qualitative analysis. The themes and codes help to better understand the impact of Polycystic Ovary Syndrome on women. The themes of the interviews are as follows:

(1) Anxiety and Depression- Several researches show that around 50% of people with PCOS experience anxiety, as compared to only 39% of people who do not have PCOS. The hormonal imbalances, weight gain and other bodily changes create psychological distress to the individual. PCOS also affects various dimensions of an individual's life which can result in sadness, isolation and constant low mood.

(2) Low Self-Esteem- Symptoms such as weight gain, acne and hirsutism negatively affect a woman's self-esteem and give rise to body image concerns. The unprecedented hair growth often also challenges the traditional viewpoints on femininity leading to the women questioning their sense of womanhood.

(3) Societal Pressure on women to have children- Family Members and friends may inquire about women's reproductive plans which can cause huge distress to women combating PCOS and infertility. Oftentimes, it is deeply imprinted in a woman's mind that till a certain age, she needs to procreate and have her kids, this creates internal pressure in a woman's mind which can lead to feelings of guilt and worthlessness and also face isolation from society. Many people are not aware of the condition which further leads to discriminatory behaviours or harsh insensitivity among the family members.

(4) Disturbed/Fluctuating Lifestyles- Many women struggle to follow the dietary challenges for the exercise routine that is required to take good care of the condition. Insomnia is also a very common diagnosis in women with PCOS where they struggle to fall asleep and eventually feel very fatigued in the morning due to not having a restful sleep throughout the night.

(5) Need for better psychological care, need for mental health care- Often when a diagnosis is given for PCOS in India the psychological conditions are kept in exclusion this creates a vacuum in the treatment as addressing these issues can lead to overall improvement of one's quality of life. Women with PCOS regularly face a tremendous amount of stigma and shame

Impact of Polycystic Ovary Syndrome (PCOS) on Mental Well-Being and Self-Esteem among Women in India

from society which creates feelings of self-doubt and negative body image. Therefore, psychological interventions are required to help alleviate these problems which cause significant distress in a woman's life.

The findings are supported by existing literature such as *Wang et al. (2022)* investigated experiences of women with Polycystic Ovary Syndrome. The study talks about the varied situations a woman goes through with this condition like menstrual disorders, infertility, stress, depression, and body image dissatisfaction. *Chaudhari et al. (2018)* researched Anxiety, Depression and its impact on the overall quality of life in women with Polycystic Ovary Syndrome in the Indian context. The results prove that anxiety and depression in women with PCOS is highly prevalent at the same time the women also reported a low on psychological quality of life.

Table 2 explains the correlation between Mental well-being and self-esteem and both having a significant relationship. The finding is supported by existing literature such as *Simon et al. (2023)* analyzed on the psychosocial impact that comes with Polycystic Ovary Syndrome. The study proves psychological comorbidities that are present with PCOS often lead to low self-esteem and therefore these individuals also tend to have poor mental well-being.

PCOS can result in physical symptoms such as acne, weight gain, and hirsutism, which can deeply affect a woman's self-esteem and body image. These symptoms can often conflict with societal expectations of femininity and beauty, leading to feelings of embarrassment, shame, and reduced self-worth. Research has consistently demonstrated that women with PCOS experience lower self-esteem and poorer body image compared to those without the condition. Additionally, concerns about fertility and difficulties in conceiving can further exacerbate feelings of inadequacy and diminish self-confidence. Addressing the psychological impact of PCOS on self-esteem is essential to promote positive self-perception and empower women to manage the challenges caused by the condition.

Polycystic Ovary Syndrome (PCOS) is a complex condition that affects both physical and psychological aspects of a woman's health. To manage it effectively, a comprehensive and holistic approach is paramount. Healthcare providers must prioritise personalised care that includes psychoeducation, counselling, and support services tailored to the unique needs of women with PCOS. Interventions that help women cope with the condition, build resilience, and improve their body image must be provided to improve mental well-being and self-esteem outcomes. To achieve optimal results, healthcare professionals, mental health specialists, and patient support groups must work together collaboratively and provide holistic care. Therefore, we must recognize and address the multidimensional nature of PCOS to optimize patient outcomes.

Hypotheses Testing:

H1: There will be a significant relationship between Polycystic Ovary Syndrome (PCOS) and Mental Well-being among Women. This hypothesis was accepted as there was a significant relationship between the two variables.

H2: There will be a significant relationship between Polycystic Ovary Syndrome (PCOS) and Self-Esteem among Women. This hypothesis was accepted as both the variables showed a strong positive significant relationship.

Impact of Polycystic Ovary Syndrome (PCOS) on Mental Well-Being and Self-Esteem among Women in India

Future Implications:

1. The continuation of research on this topic can lead to the development of more targeted and effective medical treatments for PCOS.
2. Research can help create better strategies to prevent and also lower the incidence levels of PCOS
3. Increased understanding of PCOS done by policymakers and healthcare specialists can lead to improved access to care and better support for the individual diagnosed with the condition.

Limitations:

This research has a few limitations which are as follows:

1. The study relied on self-reported data
2. The study was conducted in a specific cultural context (India) and may not work for other cultures
3. The Study was conducted in a limited time frame
4. Lack of Awareness about PCOS in the Indian Context in the general population
5. The stigma around PCOS prevents more women from speaking about the condition

Recommendations:

- a. Inclusive Education must be started in schools to create awareness about Polycystic Ovary Syndrome.
- b. The condition must be added to public health so that community psychologists can create more awareness about it in society.
- c. More research must be conducted to learn about the societal and cultural influences on Polycystic Ovary Syndrome
- d. Expand the field of study with larger and more diverse samples.

CONCLUSION

PCOS can greatly affect mental well-being and self-esteem, underscoring the importance of comprehensive management approaches that encompass both the physical and psychological aspects of the condition. By acknowledging and tackling the psychosocial implications of PCOS, healthcare providers can enable women to effectively manage the challenges posed by the condition and enhance their overall quality of life. Further research is necessary to illuminate the underlying mechanisms connecting PCOS and mental health, while also devising targeted interventions that aim to alleviate these effects.

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Impact of Polycystic Ovary Syndrome (PCOS) on Mental Well-Being and Self-Esteem among Women in India

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Conflict of Interest

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