

Distribution Of Psychological Distress And Coping Skills Among Women With And Without Pcos: Insights From A Screening Sample

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ABSTRACT

As a complex endocrine disorder, Polycystic Ovary Syndrome (PCOS) has no less impact on physical health issues than on mental health. This paper sets out to identify and contrast the incidences of psychological distress and coping skills of women with and without PCOS. The researchers used a comparative cross-sectional design in which purposive sampling was used to select a sample of 249 urban women (N = 249) aged between 20 and 39 years in Pakistan (who were selected in the gynecological and diagnostic clinics). Standardized scales were used to measure psychological distress (depression, anxiety, and stress), coping (problem-and emotion-focused and avoidance) mechanisms. For psychological distress, DASS-21 (Lovibond & Lovibond, 1995) was used and coping skills were measured using BRIEF-COPE (Carver, 1997). The results indicated that female PCOS patients were characterized by high rates of psychological distress relative to the PCOS counterparts. Also, emotion-focused and avoidance coping were more likely to be used and problem-focused coping was less used. This proves the significance of considering the psychological components of PCOS in the healthcare system and scientific fields of study. It is urgent to implant the screening of mental health into gynecological and endocrinological visits. Further, the findings illustrate the importance of creating integrated Biopsychosocial frameworks and the culture-sensitive interventions that can be used to manage women with PCOS conditions. Healthcare providers would be in a position to play a role towards the provision of more effective and holistic care, which will eventually enhance the quality of life of women living with PCOS upon the identification of the nature of the psychological issues that they experience.

Keywords: Polycystic Ovary Syndrome (PCOS); psychological distress; coping strategies; emotion-focused coping; avoidance coping; problem-focused coping; women's mental health.

INTRODUCTION

Polycystic Ovary Syndrome (PCOS) can be considered one of the most prevalent endocrine diseases in women of childbearing age and touches the lives of around 8-13 % of the world population (WHO, 2023). The diagnosis is usually found out by most women in their twenties or thirties when they have fertility trouble or their quality of life has been decreased. The syndrome is characterized by various symptoms, infertility, hirsutism, increase of weight, pimples and abnormal menstruation all of which may cause a person to experience a lot of psychological distress (Kumarapeli et al., 2011). Although PCOS is an endocrine disease at the very core, studies note that the severity of this condition can be also precipitated by psychosocial factors. Physiologically, any signs related to obesity, menstrual dysfunction and infertility can be aggravated by chronic stress (Zangeneh et al., 2012). Besides, women with PCOS often develop such psychological complications as anxiety and depression, which also make the management of the disease quite challenging (Barry et al., 2011). This underlines the importance of coping mechanisms to assist in dealing with emotional trauma caused by the condition (Dewani et al., 2023). Psychological distress is one that exhibits both positive and negative relationships with PCOS and evidence on it portrays both channels of the relationships. It is a syndrome that contributes to the growth of the emotional load and also extends to deepening the

syndrome when the person is in deep distress. Chronic stress also influences hypothalamic-pituitary-adrenal (HPA) axis to interfere with hormonal management and procreation health (Schmid et al., 2004). Women PCOS are thus trapped in a vicious cycle, where psychological and physiological symptoms aggravate one another and timely psychological evaluation and treatment is of utmost importance.

The American Psychological Association (2025) defines coping as the mechanism applied by people to deal with stress and anxiety. It has the primary influence on the extent to which women with PCOS adapt emotionally to the problems of their disorder. Coping is controlled by various aspects, such as cognitive, emotional, neurophysiological, and social (Frydenberg, 2014), and does not display traits of change over time (Boer et al., 2017). Despite the positive association between adaptive coping mechanisms, such as problem-solving, and the psychological outcomes, inappropriate coping mechanisms, such as avoiding or engagement of the emotions, may exacerbate emotional instability (Basirat et al., 2020). Researches indicates that, the coping ability used by a large number of PCOS victims is less effective, and it might consist of self-blame, denial, or avoidance (Mozid, 2022). These approaches are effective in the short-term dealing with crises but cannot function as effective means of long-term emotional regulation, which aggravates distress. Conversely, pro-active coping which focuses on direct ways of coping with the stressor has been linked to positive mental health results (Lechner et al., 2007). Both psychological difficulties and inadequate coping strategies warrants the study of distress, as well as coping style in women who experience PCOS.

The considerations of these psychological dimensions during the screening process, prior to any formal intervention, should play a crucial role in the determination of early risk factors and the dedicated identification of mental health assistance. Thus, the proposed study seeks to understand the incidence of psychological distress and coping measures in women affected by PCOS and other women who do not have it.

Research Gap

Although an accumulating literature base recognizes the psychological burden of Polycystic Ovary Syndrome (PCOS) comprising high prevalence of depression, anxiety and stress, the majority of research until now has pertained to clinical populations being treated or to assess the results of the study intervention. It is observed that the dearth of comparative studies especially those that dwell on the psychological distress and coping mechanisms of women with and without PCOS at screening level is consequential. The lack of evidence limits the insights on the determination of either to understand psychological challenges as directly linked to PCOS or as driven more by processes of treatment, the awareness of diagnosis, or lifestyle changes that occur subsequently. Moreover, there is not much to know about the baseline psychological baselines and coping patterns in undiagnosed/untreated PCOS examples, not to mention the culturally specific scenarios as in Pakistan, where culture, stigma, ignorance, and shortage of mental health assistance can compose an additional layer of delays in long-term diagnosis, thereby postponing interventions. Through the ability to identify or compare psychological distress and coping ability of women with and without PCOS, the study functions to fill a primary existing gap that can inform early diagnosing, disease prevention, and early referrals to receive psychological treatment.

OBJECTIVES

- To assess the degree of psychological suffering experienced by women who have been diagnosed with PCOS and those without PCOS
- To assess how women with and without PCOS differ in their use of problem-focused, emotion-focused, and avoidant coping methods.
- To investigate the connection between coping style levels and psychological distress intensity among PCOS diagnoses.

HYPOTHESES

- The PCOS women will present much more psychological distress than women who do not have PCOS.
- The PCOS women will show greater effect in emotion focus and avoid coping strategy than non-PCOS women.
- The intensity of psychological distress in the case of women with PCOS will correlate with the low application of problem-focused coping and the high application of avoidance coping.

LITERATURE REVIEW

According to the recent researches, PCOS is geographical variable on a larger scale. In India, prevalence is estimated as 8.2-22.5 percent (Gupta et al., 2018), and in Australia, the prevalence gives the range between 8 and 12 percent (Varanasi et al., 2018). Its prevalence in the USA is between 6 and 12 per cent (Rao et al., 2020) and 6.6 per cent of the women in the USA were reported as being diagnosed (Behboodi et al., 2018). In Malaysia, it stands at 12.6 percent (Dashti et al., 2019), whereas in China, it makes up approximately 10.01 percent (Wu et al., 2021; Deswal et al., 2020). WHO (2025) models that the percentage rate of occurrence is as high as 13 percent of all women in their fertility or reproductive age with an estimation of the total number of women living with the disease all over the world at as much as 116 million alive. Besides, it is also estimated that around 70 percent of the women related to the PCOS condition do not understand that they are having this condition (WHO, 2025). The proportion of other world estimates showed the value between 8 and 21 percent (Bozdog et al., 2016), and 5 and 10 percent (Hu et al., 2014).

The rates of prevalence are very high as in the case of Pakistan. The prevalence is 52% as said by Azhar et al. (2020) and according to Rizvi et al. (2014), PCOS affected between 20 and 33 percent of all women. These are the statistics that show why it is crucial to find PCOS both as a clinical and community health challenge in the region. The occurrence of PCOS is closely linked to mental health issues. Worldwide, women with PCOS are experiencing depressive symptoms about 37% of the time and anxiety symptoms in about 42 percent of the cases (Cooney et al., 2017; Tang et al., 2019). In India, Chaudhary et al. (2018) simply realized that 38 percent of PCOS women had neurotic anxiety, and a quarter of them were depressed. Similar to this, Light et al. (2021) also found that about 40 percent of adolescent girls with PCOS were psychologically distressed. The prevalence of depression in PCOS was 85 percent among women in Pakistan (Naz et al., 2020), whereas in another research, the numbers of depressed and anxious women amounted to 17.6 percent and 20.3 percent, respectively (Yahya et al., 2024). Research is ongoing in how the psychological burden occurs in PCOS. Dewani et al. (2023) have addressed the issue of interdependence of mood disorders and endocrine dysfunction as a complicated procedure. Basu et al. (2018) argue that the exaggerated responses to stress can be utilized to exacerbate the endocrine disorder of PCOS. As stated by Paris and Bertoldo (2019) and Ashraf et al. (2019), it was one of the reasons because the androgens detected were very high, but it was not cited by Rojas et al. (2014) and Ding et al. (2021) because they described the insulin resistance and metabolic issues as the causes. Arentz et al. (2021) also associated the growing rates of PCOS with the rise in the number of people affected by metabolic syndrome on the planet.

Studies also indicate that coping strategies play a fundamental role in deciding psychological outcomes in PCOS. According to the study by Carron et al. (2017), females with severe PCOS had both poor problem-focused coping and a higher dependence on maladaptive coping styles. Hopkins et al. (2019) focused on coping in adolescent girls with PCOS and the aspects of the psychological burden of the disorder. The study conducted by Marschalek et al. (2023) evaluated the perception of stress as well as quantified markers of stress in saliva in PCOS patients, revealing a higher perceived stress even though biomarker levels did not significantly differ. According to a study done by Altaf et

al. (2023), there exists a significant relation between the stress level and PCOS development in young women. According to Alamri et al. (2022), women with PCOS scored substantially higher in measures of depression, anxiety and stress than respondents in the control group but the lowest scores were displayed on the scales of stress. According to Gnawali et al. (2021), risk factors of women with PCOS include insulin resistance, hyperandrogenism, menstrual irregularities, obesity, and infertility as the factors contributing to depression. There is also a relationship between coping styles and self-esteem; Sharma (2023) determined that self-esteem expressed positive correlation with effective coping. Finally, Saif et al. (2021) have made a literary contribution through investigating the prevalence and demographic trends, which further support the connections between coping strategies and psychological distress in non-acute illnesses such as PCOS.

METHODOLOGY

Study Design

The study employed a comparative cross-sectional quantitative research design because it aimed to determine how women with Polycystic Ovary Syndrome (PCOS) and those without compare to each other in terms of psychological distress and coping styles.

Sample

The sample size of the population under study was the following women aged 20-39 years old who visit gynaecology and diagnostic clinics on regular or specialised medical consultation. A total of 249 women (N=249) were sampled using purposive sampling technique where the sample was selected based on whether a woman received (or did not receive) a diagnosis of PCOS as the clinical population group. The sample was divided into two categories consisting of PCOS women and women without PCOS.

Inclusion Criteria

The criteria of female participation were a preset age of 20-39, and the English language comprehension skills to understand the questionnaires. More specifically, in the case of PCOS, the participants had to have an established diagnosis of PCOS described clinically as well as by ultrasound confirmed by a certified gynaecologist.

Exclusion Criteria

The women were not included in the study in case they were pregnant, had an already diagnosed psychiatric condition, or had a persistent medical condition other than PCOS. Moreover, participants under psychiatric treatment at the time of the study were also excluded in order to avoid the problem of confounding psychological factors.

Research Instruments

Two standardized self-report measures were used for data collection along with a demographic information sheet.

The Demographic Sheet gathered basic background information such as age, marital status, education, occupation, family structure, financial status, number of children, BMI, and details related to PCOS diagnosis and treatment including duration, type of treatment, and history of any medical or psychiatric illness.

Depression, anxiety, and stress were measured through the Depression, Anxiety and stress scale (DASS-21) (Lovibond & Lovibond, 1995) which is a widely used scale. The Cronbach alpha values of the DASS-21 in the present study established high level of internal consistency ($\alpha = .70-.90$).

Coping styles were measured using Brief COPE Inventory that measures various ways of coping such as emotion-oriented, problem-oriented, and avoidant coping. The reliability scores of the subscales in the current study were between .74 and .86 which is a good indication of internal consistency.

Ethical Considerations

Before any person was supposed to participate, they were informed fully of the study and they were also asked to sign an informed consent form. The subjects were guaranteed anonymity and confidentiality, and they were told that they did not have to participate. The research involved no physical or mental harms to the research participants. Before the data collection commenced, ethical approval was received by the NUMS Institutional ethical Review Board (IRB).

Data Collection Procedure

The respondents were identified and screened when visiting gynaecology and diagnostic clinics. After confirming eligibility, they were invited to participate in the study. The data was collected using self-administered questionnaires, which were completed by participants in the presence of the researcher to ensure clarity and proper understanding of the items.

RESULTS

Frequency & Percentages of Demographic Variables

The sample comprised 249 women with a mean age of 23 years. Most participants held undergraduate (58.2%) or graduate-level degrees (32.5%), and the majority (75.5%) resided in nuclear families. A large portion of the sample were working women (88.8%), primarily from middle (55.4%) or upper-middle (36.5%) socioeconomic backgrounds. In terms of marital status, most participants were unmarried (90.4%). More than half of the sample (54.2%) were diagnosed with PCOS, with nearly half of those (43%) reporting a duration of more than three years. Treatment approaches varied, with Allopathic medication being the most commonly reported (49.6%), while some participants used herbal remedies, lifestyle interventions, or a combination, and a significant number reported no treatment at all. Most participants had no history of co-morbid medical or psychiatric conditions. In terms of BMI, over half of the participants were within the healthy weight range (53.8), while the remainder were categorized as underweight (16.9%), overweight (21.7%), or obese (7.6%). The majority had never experienced a miscarriage (96.4%), although a small number reported one or two.

Psychometric Properties of Scales and Subscales

The psychometric properties of the scales used for psychological distress and coping skills indicated good to excellent internal consistency, with Cronbach's alpha values ranging from .70 to .90 (Taber, 2018). This suggests the scales were suitable for further analysis. Additionally, the data distribution was normal, as indicated by skewness and kurtosis values falling within the acceptable range of -1 to +1 (Hair et al., 2021).

Table 1

Distribution of Severity of Psychological Distress (normal, mild, moderate, severe, extremely severe) across PCOS Diagnosis (N = 249)

PCOS diagnosis	Normal <i>f</i> (%)	Mild <i>f</i> (%)	Moderate <i>f</i> (%)	Severe <i>f</i> (%)	Extremely severe <i>f</i> (%)
No	65(57)	8(7)	18(15.8)	6(5.3)	17(14.9)
Yes	14(10.4)	4(3)	14(10.4)	13(9.6)	90(66.7)

The results indicate a marked difference in the severity of psychological distress between participants with and without a PCOS diagnosis. Among individuals diagnosed with PCOS, the majority reported extremely severe levels of psychological distress. In contrast, participants without PCOS predominantly fell within the normal range of distress. This suggests that PCOS is associated with significantly elevated psychological distress levels compared to those without the condition.

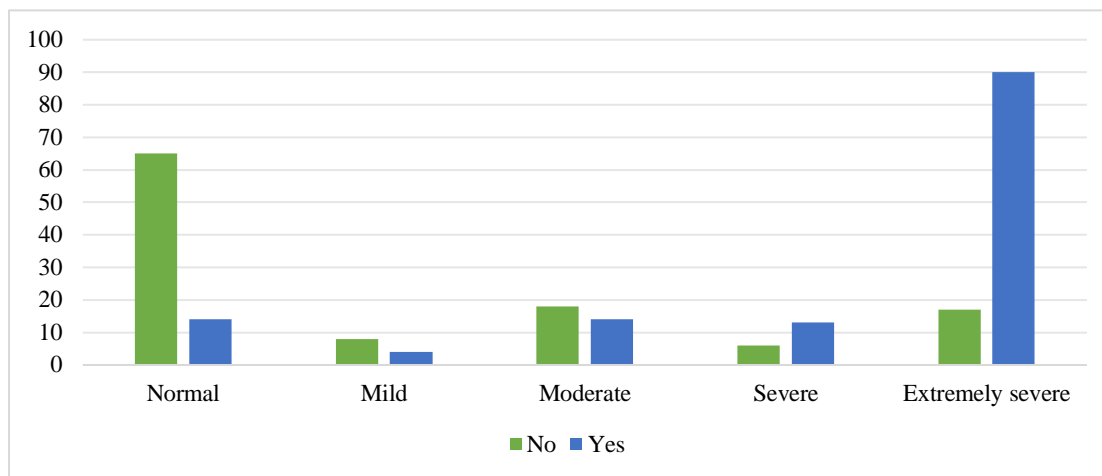


Figure 1. Prevalence of Severity of Psychological Distress (normal, mild, moderate, severe, extremely severe) across PCOS Diagnosis

Table 2

Prevalence of Psychological Distress Severity and Coping Categories (Low, Moderate, and High) across PCOS Diagnosis (N = 249)

Item	PCOS diagnosis	Normal <i>f</i> (%)	Mild <i>f</i> (%)	Moderate <i>f</i> (%)	Severe <i>f</i> (%)	Extremely severe <i>f</i> (%)
Problem-focused coping						
Low	Yes	0	0	1(16.7)	1(16.7)	4(66.7)
	No	14(93.3)	0	0	0	1(6.7)
Moderate	Yes	6(7.4)	2(2.5)	5(6.2)	9(11.1)	59(72.8)
	No	19(47.5)	3(7.5)	8(20)	4(10)	6(15)
High	Yes	8(16.7)	2(4.2)	8(16.7)	3(6.2)	27(56.2)
	No	32(54.2)	5(8.5)	10(16.9)	2(3.4)	10(16.9)
Emotion-focused coping						
Low	Yes	0	0	0	1(50)	1(50)
	No	19(94.1)	0	1(5.9)	0	0
Moderate	Yes	11(17.7)	3(4.8)	8(12.9)	9(14.5)	31(50)
	No	34(55.7)	8(13.1)	8(13.1)	4(6.6)	7(11.5)
High	Yes	3(4.2)	1(1.4)	6(8.5)	3(4.2)	58(81.7)

	No	15(44.1)	0	8(23.5)	2(5.9)	9(26.5)
Avoidant coping						
Low	Yes	4(44.4)	1(11.1)	2(22.2)	1(11.1)	1(11.1)
	No	23(82.1)	2(7.1)	2(7.1)	0	1(3.6)
Moderate	Yes	10(17.5)	2(3.5)	9(15.8)	6(10.5)	30(52.6)
	No	39(54.9)	6(8.5)	10(14.1)	6(8.5)	10(14.1)
High	Yes	0	1(1.4)	3(4.3)	6(8.7)	59(89.5)
	No	3(20)	0	6(40)	0	6(40)

The findings reveal distinct patterns in coping strategies between individuals with and without PCOS across levels of psychological distress. Among individuals with PCOS, moderate problem-focused coping was most frequently reported in the extremely severe distress category, followed by high problem-focused coping. In terms of emotion-focused coping, high-level coping was most common in the extremely severe category, with moderate levels also prevalent. Similarly, high avoidant coping was predominantly observed in participants experiencing extremely severe distress, while moderate avoidant coping also showed notable representation. In contrast, among individuals without PCOS, high problem-focused coping was more frequently associated with the normal distress category, while moderate levels appeared across lower distress categories. High emotion-focused coping was also more common among those with normal distress levels, with fewer individuals reporting it at the extremely severe level. Avoidant coping was least reported at high levels in the non-PCOS group, with most individuals showing moderate or low levels of distress in relation to this coping style.

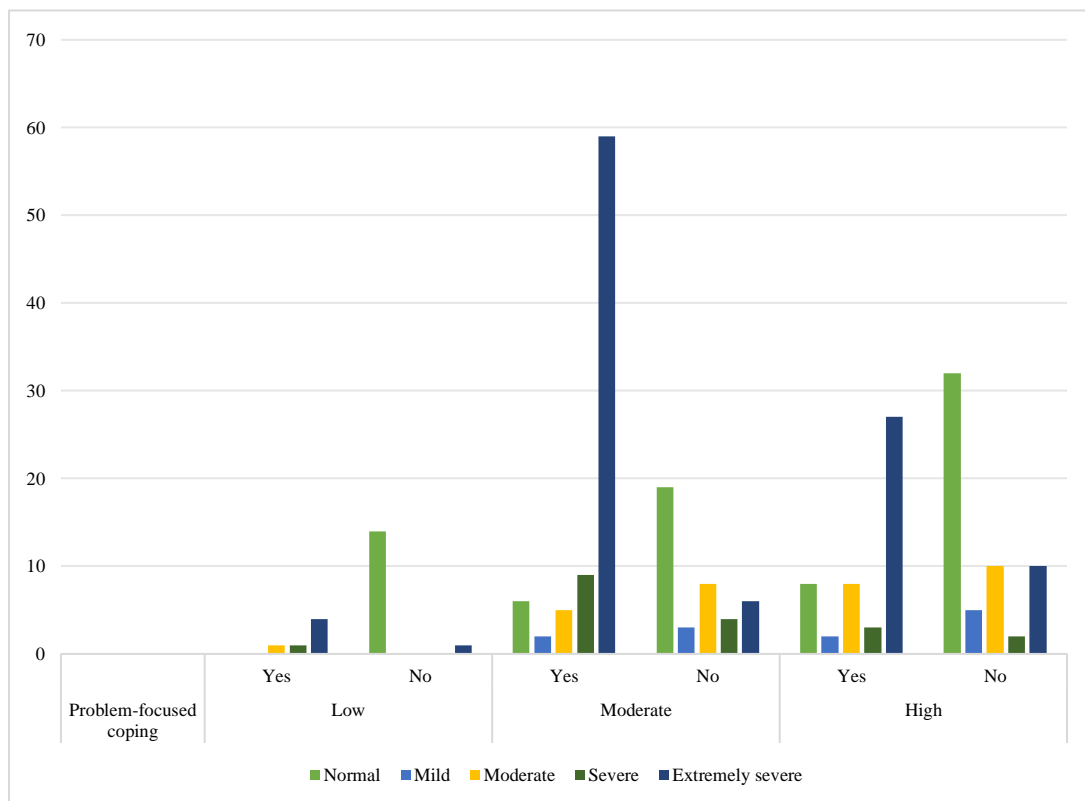


Figure 2. Prevalence of Psychological Distress Severity and Problem-Focused Coping Categories (Low, Moderate, and High) across PCOS Diagnosis

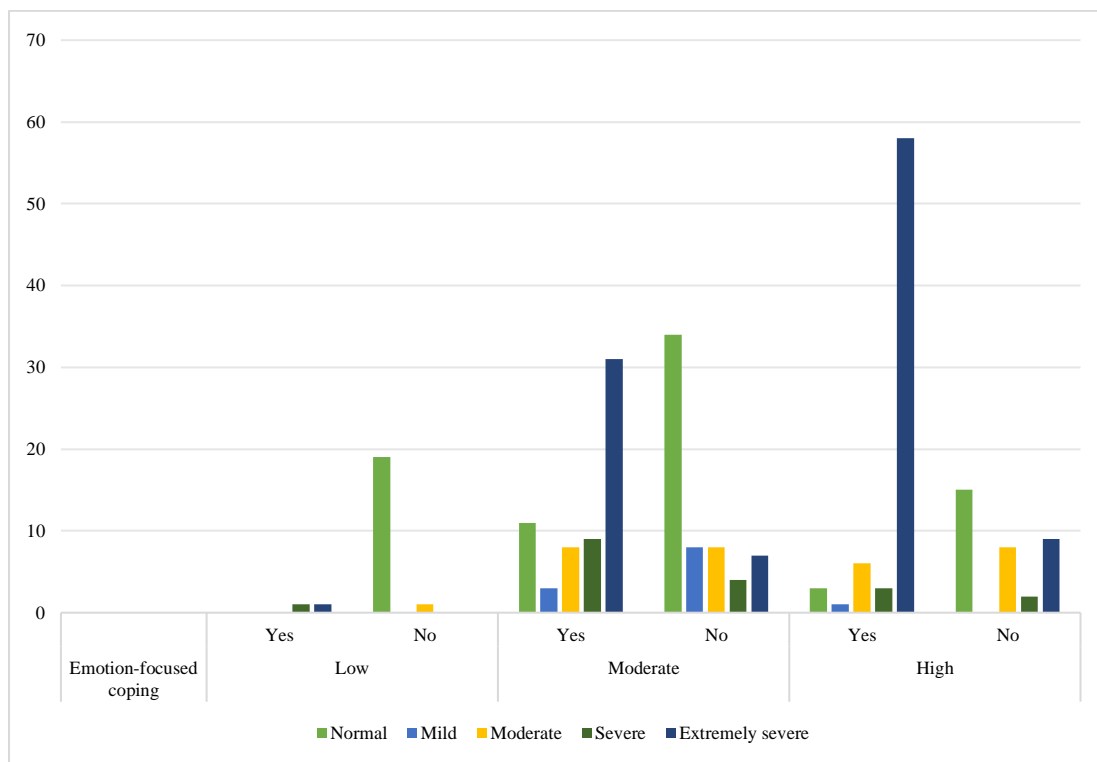


Figure 3. Prevalence of Psychological Distress Severity and Emotion-Focused Coping Categories (Low, Moderate, and High) across PCOS Diagnosis

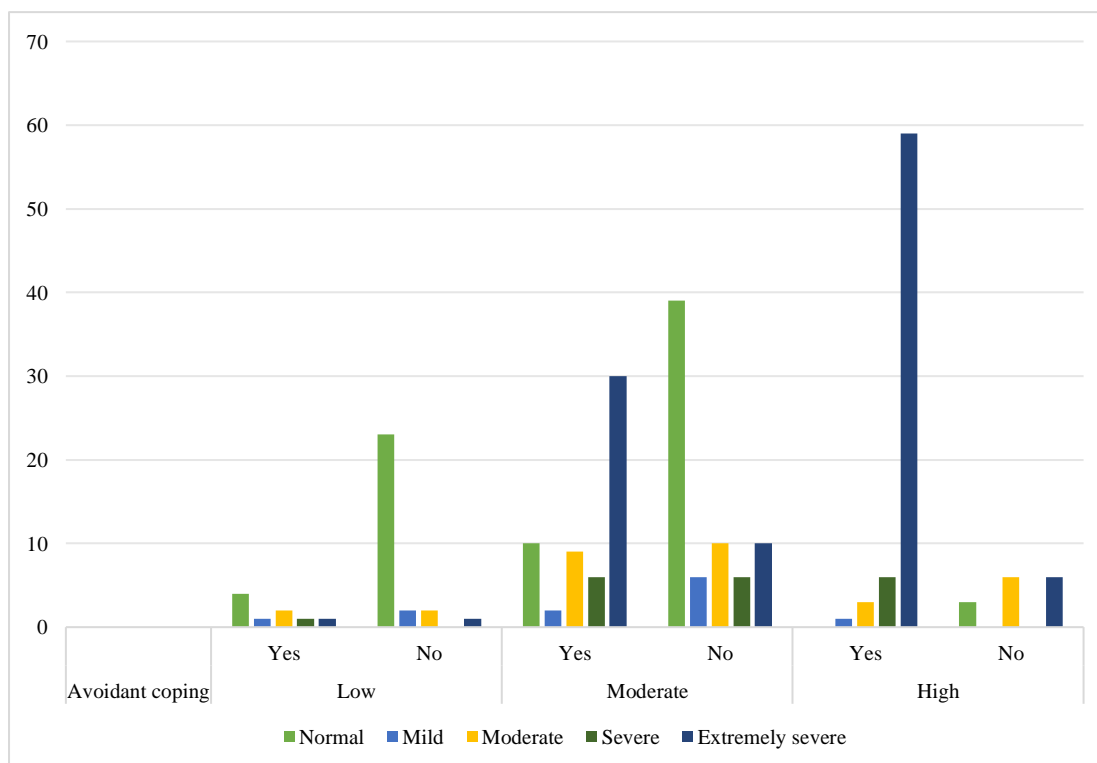


Figure 4. Prevalence of Psychological Distress Severity and Avoidant Coping Categories (Low, Moderate, and High) across PCOS Diagnosis

DISCUSSION

All of the three hypotheses put forward in the current study were supported in their findings. To start with, the hypothesis that was used to measure the extent of psychological distress among the women with PCOS was shown to have significant differences as opposed to the one used to measure the extent of psychological distress among the women without PCOS. This is relative to the existing body of literature that recognizes PCOS as a condition that is usually accompanied by escalated levels of depression, anxiety and stress, attributable to disruption in hormonal levels, infertility and body image concerns. As an example, Zangeneh et al. (2024) discovered that women with PCOS would be psychologically distressed when compared to the non-PCOS women. The research done by Nafees et al. (2024) estimates that depressed symptoms, feelings of anxiety, are more likely to be reported by Pakistani women with PCOS. Second, it has also proved the predicted relationship between the issue of PCOS in women and a more negative reliance on emotion centered coping and avoidance coping mechanisms. These results are consistent with findings made by Benson et al. (2010) who found that women with PCOS frequently engage in maladaptive ways of coping by using emotional withdrawal and avoidance as a means of dealing with chronic stress and social pressure. In the same line of thought, Morshedi et al. (2021) concluded that emotional coping was more common in the women with PCOS, especially in societies where PCOS has a social stigma. Finally, the third hypothesis, which proposed that there is a vital connection between the magnitude of psychological distress and the coping styles with distress being connected to the avoidance coping and inverse relation being witnessed with reference to problem-oriented coping, was also affirmed. It aligns with the findings of Bazarganipour et al. (2013) who pointed out that avoidance is a strong factor relating with increased psychological distress among women with PCOS. Simultaneously, these findings support the idea that PCOS not only affects physical health, but also has a powerful effect on mental health and coping behaviors as well that should be integrated into a psychosocial intervention.

Limitations

Although the current research study has been effective in its way, towards a deeper understanding of both psychological distress and coping responses in women with PCOS in the Pakistani background, there are a number of limitations that need to be identified. The study only targeted gynecology outpatient departments and therefore the study may not capture the PCOS women who do not access care in the hospital hence the findings cannot be easily generalizable. Moreover, the inclusion criterion that has been set at the minimum level of education (intermediate) is also one that locks out any woman who has a lower educational background, but may also be distressed psychologically. Other restrictions on generalizing the findings are the deficiency in the ethnic and regional variability. Methodologically, due to the sole use of self-report measures, there are concerns related to social desirability and misunderstanding of items, and because no clinician-administered assessments are administered, the psychological assessment becomes limited. Also, the cross-sectional design of the screening stage does not allow assessing longitudinal fluctuations in the level of psychological distress or coping techniques. Lastly, the researcher failed to consider biological or hormonal or environmental issues such as lifestyle that can lead to a more detailed analysis of the psychological issues experienced by the PCOS women. In addition, the researcher failed to evaluate the external psychosocial stressor which would have given a better insight on the psychological issues of the PCOS women.

Recommendations

Owing to the limitations arising in the present study, some recommendations are given to enhance future researches on screening of psychological distress and coping skills in women having PCOS in Pakistan. Research conducted in the future needs to extend the recruitment environment whereas an

emphasis must be put on primary care units, community clinics, and rural health centers, which can provide better generalizability of results beyond gynaecological outpatient departments. Increment of participation of the diversity in representation by accommodating the women who have limited or no political education is also critical, whereby distress levels may vary depending on the literacy level. Ethnic and cultural diversity will facilitate a more tiered perception about how psychologically female PCOS samples behave based on their socio-cultural backgrounds. In further methodological consideration, it is also recommended that clinician administered tests be incorporated to eliminate bias to enhance validity of the psychological profiling. In addition, culturally specific screening tools must be modified and validated to suit local situation to make them relevant and discernible. Psychosocial risk factors should also be taken into account in future research, including financial burden, pressure in the family, and access to healthcare and may also be cases when they are major determinants of psychological distress. Finally, teamwork with health care providers may aid in the pooling of biological and hormonal information to have a better idea of how physical and psychological factors are interacting in PCOS.

IMPLICATIONS

Theoretical Implications

The results of the current study enrich the growing body of knowledge on the psychological burden of Polycystic Ovary Syndrome (PCOS) as they point out the consideration that the condition does not merely have reproductive and endocrine implications as it has significant psychosocial aspects as well. The study supports the idea that PCOS should be considered in the context of a different biopsychosocial approach by identifying the presence of strong correlations between the disorder and the psychological distress, body image dissatisfaction, low self-esteem, interpersonal sensitivity, and low quality of life. Such findings would create a need to implement psychological aspect into theoretical models and frameworks concerning PCOS at least in a culturally specific setting such as that of Pakistan. Additionally, given the fact that PCOS has been underreported and underdiagnosed in the region, in many cases, thanks to the lack of communal knowledge in regard to the issue, this research paves way toward having psychosocial indicators, timeliness psychosocial symptoms, as a potential risk marker. Considering mental health tests as part of screening would allow detection of the at-risk individuals earlier, in particular among young women with mood disturbances, body image, or reproductive issues, contributing to the design of culturally advised interventions and the choice of the further research direction.

Practical Implications

These research results indicate that it is an urgent necessity to introduce mental health screening into the practice of managing women with PCOS or suspected to have PCOS. Psychological distress, low self-esteem and sensitivity towards other people are not just the consequences of the condition but could contribute in worsening the physical symptoms of the condition and thus there may be a cyclic relationship between the psychological and physiological well being. This highlights the need to have a multidisciplinary management approach to the treatment of PCOS. Incorporation of psychosocial assessment into regular gynecological and endocrinological visit may help prompt the psychological problems and prompt transfers to a mental health expert. Another finding of the study is that capacity building of healthcare providers to allow them to carry out basic psychological screenings and refer to the right pathways, also needs to be done. And, in keeping with Sustainable Development Goal 3, with its focus on good health and well-being, these results recommend integrating healthcare approaches to include reproductive health, physical health, and mental health of women with PCOS. The promotion of the necessary awareness in patients, their families, and healthcare practitioners regarding the psychological aspects of PCOS is crucial to enhance the overall health outcomes and guarantee a high level of quality of life.

CONCLUSION

All proposed hypotheses were found to be true in the findings of the study that has revealed that women with PCOS have a higher level of psychological distress and there is a higher likelihood of these women going through an emotion-focused and avoidance coping style. These findings justify the necessity to focus on the psychological aspects of the PCOS management by early screening and holistic care. Mental health input can also lead to good emotional health as well as overall health status among PCOS women.

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