

Relationship between Emotional Disclosure, Family Communication, Disease-Related Stress, and Quality of Life in Women with Polycystic Ovarian SyndromeLaiba Anjum Cheema¹, Hina Khan¹, Sadia Huda^{2*}**Abstract**

Polycystic Ovary Syndrome (PCOS) is a chronic disease which mostly kept undiagnosed and is characterized by symptoms like hirsutism, infertility, weight gain, and irregular periods. Pakistan rated a high prevalence of nearly 52% affecting women (Azhar et al., 2020). The present study examines the relationship between emotional disclosure, family communication, disease-related stress, and quality of life of women diagnosed with PCOS. Despite growing research on PCOS, there remains a significant gap in understanding the influence of emotional disclosure and family communication on psychological well-being of affected women. Using a correlation research design, data were collected from $N=115$ women with clinically diagnosed PCOS. Statistical analysis revealed that emotional disclosure positively correlated with quality of life ($r=.30, p<.01$) and family communication ($r=.27, p<.01$) whereas disease related stress showed a significant negative correlation with quality of life ($r=-.68, p<.01$). These results suggest that the strong emotional expression and family communication contribute to better psychological adjustment, while stress related to disease diminishes well-being. The study underscores the importance of integrating psychological and family-based intervention and promoting awareness of reproductive health in healthcare and educational settings to improve the overall quality of life for women with PCOS.

Keywords: Disease-related Stress, Emotional Disclosure, Family Communication, Polycystic Ovary Syndrome, Quality of Life, Women

Received: 11 September 2025; Revised Received: 20 October 2025; Accepted: 22 October 2025

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Introduction

Poly cystic ovary syndrome (PCOS) is a chronic condition characterized by the presence of two of the three following symptoms: absence of ovulation resulting in irregular or absent menstrual cycles, high levels of androgens, which cause excessive facial and body hair, also known as

hirsutism and abnormal growths on one or both ovaries—these growths are fluid-filled sacs called cysts (Smet & McLennan, 2018). Women diagnosed with PCOS gain weight mostly in their abdomen due to the high release of male hormones; also, as they are insulin resistant, it becomes difficult for them to lose weight (Watson, 2023). Along with these symptoms, women are more likely to gain weight and become obese (Teede et al., 2013). Women with PCOS become deeply concerned with their self-image, which leads to body dissatisfaction (Lee & Dokras, 2020). Globally, PCOS is one of the most prevalent endocrine conditions in women, affecting 4–18% of women at their reproductive age. Compared to white people (20–25%) in the UK, South Asian women, particularly Pakistani women, had a high prevalence of PCOS, i.e., approximately 52% (Azhar et al., 2020).

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Obesity and insulin resistance increase blood sugar, leading to a high risk of developing type 2 diabetes in PCOS women (Park et al., 2001). Being overweight in PCOS also triggers inflammation. Previous studies also conclude that an increased amount of androgen in the body leads to inflammation (Duleba & Dokras, 2012). Overweight women with PCOS have a higher chance of experiencing sleep apnea, i.e., disturbed sleeping, than the overweight women without PCOS (Tasali et al., 2008). In addition, People with PCOS also reported migraines along with headaches. In a recent study in 2020, Women with PCOS reported a 73% probability of headache as compared to Women with Normal Menstrual cycles who reported 50% (Sarahian et al., 2022). PCOS is one of the main causes of infertility in women. A disturbed menstrual cycle entails conditions such as amenorrhea and Oligomenorrhea, which stop the normal ovulation pattern of women and cause infertility (Wang & Alvero, 2013).

Along with the clinical symptoms of PCOS, women also suffer from disease-related stress like anxiety, depression, and psychiatric disorders, which influence their HRQOL. Psychological distress like chronic anxiety, depression, and personality disorders, was found more in PCOS patients (Sayyah-Melli et al., 2015). Symptoms like infertility lead to anxiety, while acne causes depression in PCOS women. Moreover, symptoms like excessive facial hair are also a leading cause of poor HRQL in PCOS women (Chaudhari et al., 2018). Psychological distress like anxiety, depression and eating disorders are more prevalent in PCOS women, which hurts their self-esteem and QoL (Simon et al., 2023). In addition, a study carried out by Cooney & Dokras (2017) determined that obesity, insulin resistance, and high levels of androgen, i.e., a very common symptom of PCOS, are closely associated with depression and anxiety in PCOS women.

Symptoms like obesity, infertility, and hirsutism lead to depression and low self-confidence in PCOS women. Hormonal imbalance and stress regarding infertility cause anger, anxiety, irritability, and emotional changes in PCOS patients (Balikci et al., 2014). A study reveals that a high rate of sleep problems like excessive daytime sleeping and obstructive sleep apnea are most commonly found in women diagnosed with PCOS, also poor sleep is found to be one of the main pathophysiology of PCOS. Metabolic stress caused by PCOS leads to emotional stress in women (Fernandez et al., 2018). Body dissatisfaction and negative self-image in PCOS women are associated with depression, body dissatisfaction, negative self-image, and sexual dysfunction (Kogure et al., 2019). Symptoms of PCOS, such as changes in weight and physical appearance, and endocrine disruption, adversely affect the social, sexual, and psychological health of patients, resulting in low quality of life in PCOS women (Moghadam et al., 2018).

Women with polycystic ovary syndrome are more at risk of having metabolic disorders and symptoms like depression, weight gain, and hirsutism play a huge role in decreased QoL in patients (Ishaq et al., 2022). Emotional Disclosure, among married or unmarried women suffering from PCOS, either verbal or written has been found to improve their mental and physical health. Sharing your sufferings with your loved ones or therapist tends to shed the burden on the patient's shoulders (Meads & Nouwan, 2005). A study by Reblin & Uchina (2008) concluded that social and emotional support from people plays a role of an effective role in well-being. Polycystic ovary syndrome and infertility hurt the QoL of infertile PCOS women (Angin et al., 2019). Emotional self-disclosure seems to decrease stress levels in infertile women, and also helps them promote coping strategies and control the severity level of anxiety and depression (Mosalanjad et al., 2012).

Castelo-Branco and Naumova (2020) concluded that symptoms like infertility, high levels of androgens, body image dissatisfaction, and low self-esteem result in a high prevalence of low quality of life, endocrine disorders, and mood problems in PCOS women. Emotional disclosure decreases depression and increases QoL in women undergoing in-vitro fertilization (Kim et al., 2021). A study also demonstrated that emotional disclosure helps people with psychosomatic disorders improve their life quality and enhance their psychological and physical health in the long run (Yazdanfar et al., 2015). People in Pakistan felt uncomfortable while talking about sexual health education (Jivani & Minaz, 2019).

A study reveals that there are many social and cultural hurdles to talking about reproductive issues between children and parents (Mullis et al., 2021). While dealing with disease, family communication has an effective effect on the HRQoL of patients (Lim & Ashing-Giwa, 2013). Symptoms like depression, hirsutism, and acne in women negatively impact the quality of life of PCOS women (Sidra et al., 2019). Adolescents with high levels of family cohesion and self-confidence are less likely to suffer from depression (Zahra & Saleem, 2021). PCOS women face more health risks like diabetes, sleep apnea, hypertension, high cholesterol levels, infertility, hirsutism, and chances of miscarriages. Depression seems to be higher in PCOS women, which leads to poor QoL (Sidra et al., 2019).

Psychosocial support should be considered important in the treatment of PCOS for young women (Weiss & Bulmer, 2011). A study conducted on 506 infertile couples shows that women faced higher infertility-related stress and low family cohesion and family adaptability as compared to men (Lei et al., 2021). Moreover, family relationships have a positive relationship with dyadic coping strategy, which leads to better family cohesion, adaptability, and intimacy (Tang et al., 2022).

Pakistan is becoming a developing country, but still, speaking about reproductive health problems is considered taboo. As already discussed, the high prevalence of PCOS in Pakistan has raised concerns for conducting research from a psychological perspective. Many women in Pakistan are deprived of basic menstrual education and remain undiagnosed. Talking about reproductive health issues, women in Pakistan still need the courage to discuss them. Numerous studies have explored the role of social support in chronic illness, but unfortunately, there is a research gap on emotional disclosure in PCOS. Further investigation is also needed into the role of family communication in the context of PCOS in Pakistani culture. The present research aims to find the relationship between family communication and emotional disclosure, and the quality of life of PCOS women. Overall, the research aims to create awareness in people about the role of family communication, emotional disclosure, and disease-related stress on the quality of life of women, so that the importance of women's reproductive health issues should be taken into account.

Objectives

- The study aims to explore the relationship between emotional disclosures, family communication, disease-related stress, and quality of life in women diagnosed with PCOS

Hypotheses

- H1: There is a positive relationship between emotional disclosure, family communication, and quality of life in PCOS women.
- H2: Health-related stress has a negative relation with quality of life.

Method

Research Designs

In this study, a correlational design is used to identify the relationship among study variables, i.e., family communication, emotional disclosure, disease-related stress, and quality of life in PCOS women.

Sampling Characteristics

The sample size of ($N=115$) PCOS-diagnosed women was selected. The study employed purposive and snowball sampling techniques to collect the data. Since it was difficult to recruit PCOS patients, a snowball sample has helped in identifying the patients.

Inclusion/Exclusion Criteria

Data was collected from the population of women diagnosed with PCOS, having an age range from 18 years to 35 years old. Women who were undiagnosed with PCOS were excluded. Women diagnosed with serious mental disorders or serious health problems were excluded.

Measures

Demographic Sheet

Some personal questions were included in this sheet, like age, current weight, marital status, education, income status, family system, facial hair, and duration of PCOS, infertility problems, and psychological and health-related problems.

Emotional Disclosure Scale

This scale consists of 10 items, which are used to measure the feelings and emotions of an individual. It is measured through a 5-point Likert scale where 1 means '*not at all*' and 5 means '*always*'. The scale shows reliability from .83 to .95. The measure used in the research was Urdu translated as our targeted population was mostly bilingual, so it was easy to administer. (Snell et al., 1988)

World Health Organization Quality of Life Scale

This scale has 26 items used to measure the QoL of individuals. It further has 4 domains, like the environmental domain has 8 items, the physical has 7 items, the psychological has 6 items, and 3 items for the social domain. It is measured through a 5-point rating scale in which 1 means '*disagree*' and 5 means '*completely agree*'. The scale shows a reliability of .89 for the whole scale and was further translated into Urdu with the help of a group of bilingual Pakistani healthcare providers (WHO, 1998).

Family Communication Scale

A 10-item scale was designed to measure family bonding and the relationship between them. It consists of a 5-point Likert scale. The Cronbach alpha value of .74 shows good internal consistency (reliability) of the scale. The measure used in the research was translated (Zahra & Saleem, 2021).

Procedure

First, we select variables and scales to measure the relationship between variables. Then, permission to use the scales was taken from the authors via email. As most of our targeted population was Urdu speaking, for their ease, the scales were translated into Urdu, which was taken from the Department of Applied Psychology of the University of Management and Technology. A standardized procedure for data collection was followed to ensure methodological consistency across different recruitment settings. All the participants recruited through purposive and snowball sampling from hospitals, clinics, and personal referrals received the same Urdu-translated questionnaire with uniform instructions in light of ethical considerations. Data collection was conducted by the researcher to ensure uniform administration and procedural consistency. Instructions regarding the demographic sheet and questionnaire were given to them for their better understanding. 15-20 minutes were taken by each participant to complete the questionnaire.

Ethical Considerations

The consent form was provided to each participant. The aim, nature, and objective of the study were explained to the participants. The right to withdraw at any time from the research was also provided. The right to confidentiality and privacy of their personal information was also assured.

Results

First of all, after entering the data on SPSS, we reverse the scoring of those items which was given in the scoring manual, and then we will compute all our scale items used in the research, and then apply the preliminary

analysis to check any outliers, missing values or any mistakes in data entry. After that, to check the reliability of the scales

used, we find the Cronbach value, which indicates the reliability or internal consistency of the scales.

Table 1

Psychometric Properties of Scales (N=115)

Scales	<i>M</i>	<i>SD</i>	Ranges	Cronbach's α
Emotional Disclosure Scale	25.11	5.19	15-38	0.77
World Health Organization Quality of Life Scale	83.78	11.45	46-108	0.90
Family Communication Scale	36.48	9.52	17-50	0.92
Disease Related Stress Scale	79.39	20.24	86-35	0.95

Note. Emotional Disclosure Scale = EDS; World Health Organization Quality of Life Scale = WHOQOLS; Family Communication Scale = FCS; Disease Related Stress Scale = DRSS

The results of the above table show that the Emotional Disclosure Scale has moderate and satisfactory reliability, like .77. World Health Organization Quality of Life Scale shows fairly good reliability i.e., .90. While

the Family Communication Scale and Disease Related Stress show high reliability, like .92 and .95, respectively. Overall, the result shows high values of Cronbach's alpha.

Table 2

Relationship of Emotional Disclosure, Quality of Life, Family Communication and Disease Related Stress (N=115)

Variables	<i>M</i>	<i>SD</i>	1	2	3	4
Emotional Disclosure	25.11	5.19	--	--	--	--
Quality of Life	83.78	11.45	0.30**	--	--	--
Family Communication	36.48	9.52	0.27**	0.52**	--	--
Disease Related Stress	79.39	20.24	-0.18*	-0.68**	-0.32**	--

* $p < .05$, ** $p < .01$

Results of Table no 2 show that emotional disclosure has a significant positive correlation with the quality of life ($r=0.30^{**}$, $p<0.01$), also there is a positive and significant correlation between emotional disclosure and family communication ($r= 0.27^{**}$, $p<0.01$) Emotional disclosure has a negative yet significant correlation with disease-related stress ($r= -0.18^*$, $p<0.05$). Also, family communication has a significant and

positive correlation with quality of life ($r=0.52^{**}$, $p<0.01$). Quality of life has a significant relation but negatively correlates with disease-related stress ($r= -0.68^{**}$, $p<0.01$). There is a negative yet significant correlation between family communication and disease-related stress ($r= -0.32^{**}$, $p<0.01$). Overall, the results of Table 2 show a significant relation between variables. In general, the results indicate that when emotional disclosure and family

communication increase, the quality of life of PCOS women increases. It also shows that when emotional disclosure or family communication increases, disease-related

Discussion

The study aims to explore the relationship between emotional disclosure, family communication, disease-related stress, and quality of life in PCOS women in Pakistan. The current study hypothesized that there is likely a relationship between family communication and quality of life in PCOS women. According to our research findings, family communication significantly and positively correlates with quality of life in PCOS women. Consistent with Mendes et al. (2017), our results also ensure that a strong family cohesion enhances quality of life. For Pakistani context, the findings are more significant as cultural taboo limits the discussion about reproductive health issues, a prior evidence by Elsenbruch et al. (2003) demonstrated that higher degree of psychological problems like anxiety, depression, and psychoticism in PCOS women have negative influence on their different areas of life, when PCOS women discuss their feelings and emotions to their family members regarding their health condition it makes them feel less burdened and gets support from their family which helps them in coping the condition. To improve the mental well-being of patients, clinical health promotion should focus more on family cohesion and perceived burden (Trapp et al., 2019).

The finding also indicated that emotional disclosure has a positive relation to the quality of life in PCOS women. While dealing with any physical and psychological problems, humans become emotionally vulnerable. Our results extend previous findings (Khomami et al., 2015) by confirming that the physical symptoms of PCOS not only affect the health-related quality of life of women but also eventually make them emotionally vulnerable, leading them to repress their emotions, and it also mediates the stress, anxiety and emotional

stress decreases and vice versa. Moreover, when disease-related stress increases, quality of life decreases and vice versa.

disclosure patterns among PCOS women. These problems further deteriorate the patient's quality of life. Regulating your emotions helps to improve your physical and psychological health and QoL. As supported by one of the previous studies (Yazdanfar et al., 2015), which demonstrates that emotional disclosure significantly enhances QoL, health condition and psychological well-being of the people in the long run, highlighting its therapeutic efficacy in community psychology settings.

Moreover, the results of the current study also demonstrated that there was a negative relationship between health-related stress and QoL. This study adds to the existing body of evidence (Moghadam et al., 2018) by emphasizing that major symptoms of PCOS, such as a change in weight, altered physical appearance and endocrine disruption, adversely affect the social, sexual, and psychological health of patients, resulting in low-quality life. In a culture like Pakistan, most people do not have an awareness of mental health problems and their adverse effect on an individual's QoL. Consistent with prior findings, Kumarapeli et al. (2011) confirm that PCOS symptom hirsutism leads to mental distress in South Asian women, which badly influences their mental and HRQoL, underscoring its psychological burden and its contribution to targeted mental health interventions. Our results extend previous findings (Barry et al., 2011) PCOS is characterized by many psychological and physical symptoms like obesity, hirsutism, anxiety, depression, and body image distress and previous study (Khomani et al., 2015) also concluded that hirsutism in PCOS women leads to low QoL, emphasizing its potential benefit in offering valuable insight into the

interconnected physical and psychological effects of PCOS.

While the present study emphasizes the significant relation between family communication, disease-related stress, emotional disclosure and quality of life, it's important to identify the potential confounding variables like education, socioeconomic status, and severity of symptoms which further contribute for better understanding, precise conclusions, future studies could control these variables.

Conclusion

This study is among the first to explore the interrelated role of emotional disclosure, family communication and disease-related stress in predicting quality of life among Pakistani women diagnosed with PCOS. It adds to the limited literature from South Asia by emphasizing the family-based psychological support in coping with chronic reproductive health problems. The finding helps to highlight the societal need to integrate emotional health and communication practices in the treatment plan of PCOS. It concludes that family communication and emotional disclosure play a significant role and positively correlate with the quality of life of PCOS women. It indicates that a decrease in disease-related stress increases the health-related quality of life in PCOS-diagnosed women and vice versa. Pakistan lacked research regarding but this finding helps to raise awareness and to break the stereotype of not openly discussing reproductive health issues.

Limitations/Suggestions

The objective of the current study was to recruit women with PCOS. The sample size is quite small due to a lack of awareness about reproductive health issues in Pakistan. However, a larger sample would provide more comprehensive information. One limitation is the need to collect data from various cities in Pakistan to improve the generalizability of the results. Typically, data is collected from educated women. Data should be gathered from both educated and uneducated women to

enhance reliability. The use of self-reports may also introduce response bias.

Implication of the Study

More awareness about sexual and menstrual issues will be provided in schools, universities, colleges, and health centers. Educational and health programs and more facilities should be provided to women in rural areas. Psychologists and psychiatrists should consider the role of the family while dealing with any individual with a disorder. Mental health awareness, facilities, and seminars on reproductive health issues should be provided in education and health centers. Parents should be educated about menstrual issues and should have an open conversation with their young girls so that issues like PCOS will not be further undiagnosed.

Ethics Statement

All the ethical standards of APA were met. Informed consent was taken in written form from all the respondents to participate in this study.

Contribution of Authors

Laiba Anjum Cheema: Conceptualization, Investigation, Methodology, Data Curation, Formal Analysis, Writing – Original Draft
Hina Khan: Conceptualization, Investigation, Methodology, Data Curation, Formal Analysis
Sadia Huda: Methodology, Writing - Reviewing & Editing, Supervision

Conflict of Interest

There is no conflict of interest declared by the authors.

Source of Funding

The authors declared no source of funding.

Data Availability Statement

The datasets of the current study are not available publicly due to ethical reasons but are available from the corresponding author [S.H.] upon the reasonable request.

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