



HEALTH RELATED QUALITY OF LIFE OF POLYCYSTIC OVARY SYNDROME IN WOMEN ATTENDING IMAM AL-SADIQ GENERAL TEACHING HOSPITAL IN HILLA CITY DURING 2024

*Taif Raad Abbas Abid Ali and Mithaq Abdullateef Huraiz

Babylon Health Directorate, Babylon, Iraq.

Article Received date: 28 March 2025

Article Revised date: 17 April 2025

Article Accepted date: 07 May 2025



*Corresponding Author: Taif Raad Abbas Abid Ali

Babylon Health Directorate, Babylon, Iraq.

ABSTRACT

Background: Polycystic Ovary Syndrome (PCOS) significantly affects the lives of Iraqi women, yet psychological support remains inadequate due to limited awareness and insufficient resources. **Objectives:** This study aims to assess the impact of obesity, fertility status, and androgenism scores on the health-related quality of life (HRQOL) in women diagnosed with PCOS in Hilla city. **Methodology:** A descriptive cross-sectional study was conducted in 2024 in Hilla city, involving 168 women of childbearing age. All participants were diagnosed with PCOS by gynecologists based on clinical, biochemical, and ultrasound findings. These women attended the gynecology and infertility outpatient clinics at Imam Al-Sadiq General Teaching Hospital, seeking treatment for irregular menstrual cycles, hyperandrogenism symptoms, or infertility. **Results:** The study revealed that PCOS had a substantial negative impact on HRQOL. A marked effect on quality of life was reported in 67.6% of married women and 47.6% of unmarried women. **Conclusion:** The current study highlights that PCOS significantly affects women's quality of life, particularly through hair disorders, acne, body image issues, and psychological stress. This emphasizes the importance of holistic management addressing both physical and emotional aspects of the condition.

KEYWORDS: Health, quality of life, Polycystic Ovary Syndrome.

INTRODUCTION

Polycystic Ovary Syndrome (PCOS) is a prevalent endocrine disorder that affects hormonal balance in the body. It is characterized by a range of hormonal and metabolic abnormalities, including insulin resistance, hyperandrogenism, and disturbances in both lipid and carbohydrate metabolism.^[1] The syndrome derives its name from the ovarian cysts that may develop in some individuals with the condition; however, the presence of cysts is not universal and is not considered the underlying cause of the disorder.^[2] Common symptoms experienced by women with PCOS include irregular or heavy menstrual periods, excessive hair growth, acne, pelvic pain, difficulty conceiving, and areas of thickened, dark, velvety skin.^[3] The core features of PCOS include hyperandrogenism, anovulation, insulin resistance, and neuroendocrine dysfunction.^[4] A review of international data has shown that the prevalence of PCOS can reach up to 26% in certain populations, though it typically ranges between 4% and 18% in the general population (5,6). While the exact etiology remains unclear,

treatment generally focuses on symptom management through medication and lifestyle changes.^[5] This study aims to assess the impact of obesity, fertility status, and androgenism scores on the health-related quality of life (HRQOL) in women diagnosed with PCOS in Hilla city.

METHOD

This cross-sectional descriptive study was conducted at Imam Al-Sadiq General Teaching Hospital, specifically within the outpatient gynecology and infertility clinics, from May 1st to August 1st. A pilot study involving 10 women (excluded from the main sample) was conducted to assess the response rate and estimate the time required for each interview. A total of 168 women diagnosed with polycystic ovary syndrome (PCOS), both married and unmarried, were selected using simple random sampling. Inclusion criteria involved attendance at the specified clinics and a prior diagnosis of PCOS. Ethical approval was obtained from the Continuing Medical Teaching Unit at Imam Al-Sadiq Hospital and the Medical Training and Development Centre in Babylon. Verbal

consent was obtained from all participants. Data collection was performed using the validated and Arabic-translated PCOSQoL-47 questionnaire for married women and PCOSQoL-42 for unmarried women. These questionnaires assess health-related quality of life (HRQOL) through a 5-point Likert scale, with responses ranging from "Never" (5, indicating no effect on HRQOL) to "Always" (1, indicating a severe effect on HRQOL). Items were formulated with a mix of positive and negative wording to maximize reliability and understanding, and average response time ranged from 15 to 30 minutes. Scoring involved calculating the mean score for each domain by summing individual item scores and dividing by the number of items scored. The final score was derived by averaging across all domain scores. Scores between 1 to <3 indicated a marked effect on HRQOL; 3 to <4, marginal effect; 4 to <5, minimal effect; and a score of 5 indicated no effect. Lower scores reflected greater negative impact. Statistical analysis was conducted using IBM SPSS Statistics version 26. Descriptive statistics, including frequencies and percentages, were used to present the prevalence of PCOS symptoms among the surveyed women.

RESULTS

Table 1 shows that 10.8% of married women with PCOS are aged ≤ 20 years, 58.8% are between 21–30 years, 26.5% are between 31–40 years, and 3.9% are between 41–50 years. This indicates that the majority fall within the 21–30 age group (58.8%), followed by 26.5% in the 31–40 age group. Regarding psychological and emotional status, 61.8% of married women with PCOS reported a marked effect, 32.4% a marginal effect, and 5.9% a minimal effect. This suggests that the majority (61.8%) experience significant psychological impact. In terms of fertility and sexual life, 37.3% of married women reported a marked effect, 27.5% a marginal effect, 28.4% a minimal effect, and 6.9% no effect. This indicates that the highest proportion (37.3%) experienced a marked impact. Additionally, 65.7% of women reported a marked effect of PCOS on body image, 11.8% a marginal effect, 20.6% a minimal effect, and only 2% reported no effect. This shows that concerns about body image are a major issue for most women with PCOS.

Table 1: distribution of patients according to study variables.

Category	Frequency	Percent (%)
Age ≤ 20	11	10.8
Age 21-30	60	58.8
Age 31-40	27	26.5
Age 41-50	4	3.9
Psychological (Marked)	63	61.8
Psychological (Marginal)	33	32.4
Psychological (Minimal)	6	5.9
Fertility (Marked)	38	37.3
Fertility (Marginal)	28	27.5
Fertility (Minimal)	29	28.4
Fertility (No Effect)	7	6.9
Body Image (Marked)	67	65.7
Body Image (Marginal)	12	11.8
Body Image (Minimal)	21	20.6
Body Image (No Effect)	2	2.0

Table 2 shows that 71.6% of women with PCOS reported a marked effect of hair disorders and acne on their lives, while 15.7% experienced a marginal effect, 11.8% a minimal effect, and only 1% reported no effect. This indicates that the majority (71.6%) are significantly affected by these symptoms. Regarding obesity and menstrual disorders, 64.7% of married women reported a marked effect, 25.5% a marginal effect, 7.8% a minimal effect, and 2% no effect. This demonstrates that most married women with PCOS experience a strong impact from obesity and menstrual disturbances (64.7%). Overall quality of life was markedly affected in 67.6% of married women with PCOS, while 25.5% reported a marginal effect and 6.9% a minimal effect. This highlights that the majority (67.6%) experience a significant reduction in their health-related quality of

life. Among unmarried women with PCOS, 13.1% were aged ≤ 20 years, 75.0% were aged 21–30 years, 10.7% were between 31–40 years, and 1.2% were between 41–50 years. This indicates that the majority of unmarried women fall within the 21–30 age group (75.0%). In terms of psychological and emotional well-being, 45.2% of unmarried women reported a marked effect, 38.1% a marginal effect, 14.3% a minimal effect, and 2.4% no effect. These results show that a considerable proportion of unmarried women (45.2%) are markedly affected psychologically by PCOS.

Table 2: distribution of patients according to study variables.

Category	Frequency	Percent (%)
Hair Disorders & Acne (Marked)	73	71.6
Hair Disorders & Acne (Marginal)	16	15.7
Hair Disorders & Acne (Minimal)	12	11.8
Hair Disorders & Acne (No Effect)	1	1.0
Obesity & Menstrual (Marked)	66	64.7
Obesity & Menstrual (Marginal)	26	25.5
Obesity & Menstrual (Minimal)	8	7.8
Obesity & Menstrual (No Effect)	2	2.0
Total Score (Marked Effect)	69	67.6
Total Score (Marginal Effect)	26	25.5
Total Score (Minimal Effect)	7	6.9
Unmarried Age ≤20	11	13.1
Unmarried Age 21-30	63	75.0
Unmarried Age 31-40	9	10.7
Unmarried Age 41-50	1	1.2
Psychological (Marked - Unmarried)	38	45.2
Psychological (Marginal - Unmarried)	32	38.1
Psychological (Minimal - Unmarried)	12	14.3
Psychological (No Effect - Unmarried)	2	2.4

Table 3 shows that 54.8% of unmarried women with PCOS reported marked menstrual irregularities, while 41.7% experienced a marginal effect, 2.4% a minimal effect, and only 1.2% reported no effect. This indicates that menstrual disturbances are a prominent concern, with the majority experiencing a marked impact (54.8%). Regarding body image, 32.1% of unmarried women reported a marked effect, another 32.1% reported a marginal effect, 25.0% a minimal effect, and 10.7% reported no effect. These findings reveal that a combined majority (64.2%) experience either marked or marginal concerns about body image related to PCOS. Hair disorders and acne were also found to be highly impactful, with 69.0% of unmarried women experiencing a marked effect, 21.4% a marginal effect, and 9.5% a

minimal effect. None of the participants reported no effect, highlighting the widespread impact of these symptoms. In terms of coping, 34.5% of unmarried women reported a marked effect, and an equal proportion (34.5%) experienced a marginal effect. Meanwhile, 26.2% reported a minimal effect, and 4.8% experienced no effect. This suggests that the majority of unmarried women face moderate to significant challenges in coping with PCOS symptoms. Finally, the overall health-related quality of life among unmarried women with PCOS was markedly affected in 47.6% of cases, with 46.4% reporting a marginal effect and 6.0% a minimal effect. These results indicate that nearly half of the participants experience a significant decline in their quality of life due to PCOS.

Table 3: distribution of patients according to study variables.

Category	Frequency	Percent (%)
Menstrual & Fertility (Marked)	46	54.8
Menstrual & Fertility (Marginal)	35	41.7
Menstrual & Fertility (Minimal)	2	2.4
Menstrual & Fertility (No Effect)	1	1.2
Body Image (Marked - Unmarried)	27	32.1
Body Image (Marginal - Unmarried)	27	32.1
Body Image (Minimal - Unmarried)	21	25.0
Body Image (No Effect - Unmarried)	9	10.7
Hair Disorders & Acne (Marked - Unmarried)	58	69.0
Hair Disorders & Acne (Marginal - Unmarried)	18	21.4
Hair Disorders & Acne (Minimal - Unmarried)	8	9.5
Coping (Marked - Unmarried)	29	34.5
Coping (Marginal - Unmarried)	29	34.5
Coping (Minimal - Unmarried)	22	26.2
Coping (No Effect - Unmarried)	4	4.8
Total Score (Marked - Unmarried)	40	47.6
Total Score (Marginal - Unmarried)	39	46.4
Total Score (Minimal - Unmarried)	5	6.0

DISCUSSION

This study highlights that the majority of both married and unmarried women with PCOS fall within the 21–30-year age group, accounting for 58.8% and 75.0% respectively. This suggests that PCOS commonly affects women in their reproductive years, a finding that aligns with the general epidemiological understanding of the condition. Psychological and emotional disturbances were also found to be prevalent, with 61.8% of married women and 45.2% of unmarried women experiencing a marked negative impact on their mental well-being. This underscores the significant psychological burden PCOS imposes on affected individuals, regardless of marital status. In terms of fertility and reproductive health, 37.3% of married women and 46.0% of unmarried women reported a marked effect, indicating that PCOS continues to significantly disrupt fertility and menstrual regularity. Interestingly, the impact on body image was more profound among married women (65.7%) than their unmarried counterparts, who demonstrated nearly equal proportions experiencing marked (32.1%) and marginal (32.1%) effects. Hair disorders and acne, common manifestations of hyperandrogenism in PCOS, were reported to have a marked impact in both groups—71.6% among married women and 69.0% among unmarried women.^[6] These findings are consistent with a study conducted on Iranian women, which also identified these symptoms as highly distressing for patients with PCOS.^[7] Obesity and menstrual irregularities were found to have a marked effect in 64.7% of married women. Similarly, 54.8% of unmarried women experienced significant menstrual disturbances, and 69% reported notable effects on coping abilities, with 34.5% reporting both marked and marginal impacts. While our findings emphasize the importance of menstrual health in quality of life, they contrast with a U.S.-based study, which reported that the type of menstrual disturbance or presence of infertility did not significantly influence psychological well-being.^[8] Overall, the health-related quality of life (HRQoL) was markedly affected in 67.6% of married women and 47.6% of unmarried women. This is consistent with findings from online forums hosted by Verity, a UK-based PCOS charity, where women reported significantly poorer HRQoL associated with PCOS symptoms.^[9]

CONCLUSION

Current study demonstrates that PCOS substantially impacts women's quality of life, especially through symptoms like hair disorders, acne, body image concerns, and psychological stress. These findings underscore the need for comprehensive management strategies that go beyond symptom control to address the broader psychological and emotional needs of women with PCOS.

REFERENCES

1. Bednarska S, Siejka A. The pathogenesis and treatment of polycystic ovary syndrome: What's new? *Adv Clin Exp Med*, 2017; 26(2): 359–367.

2. Khan MJ, Ullah A, Basit S. Genetic basis of polycystic ovary syndrome (PCOS): Current perspectives. *Appl Clin Genet*, 2019; 12: 249–260.
3. Eunice Kennedy Shriver National Institute of Child Health and Human Development. What are the symptoms of PCOS? [Internet]. 2022 Sep 29 [cited 2025 Apr 4]. Available from: <https://www.nichd.nih.gov/health/topics/pcos/conditioninfo/symptoms>
4. Crespo RP, Bachega TA, Mendonça BB, Gomes LG. An update of genetic basis of PCOS pathogenesis. *Arch Endocrinol Metab*, 2018; 62(3): 352–361.
5. Lentscher JA, Slocum B, Torrealday S. Polycystic ovarian syndrome and fertility. *Clin Obstet Gynecol*, 2021; 64(1): 65–75.
6. Odhaib SA, Nasiri Amiri F, Altemimi MT, et al. Development of the first health-related quality of life questionnaires in Arabic for women with polycystic ovary syndrome (Part I): The creation and reliability analysis of PCOSQoL-47 and PCOSQoL-42 questionnaires. *Cureus*, 2021 Apr 28; 13(4): e14737.
7. Khomami MB, Tehrani FR, Hashemi S, Farahmand M, Azizi F. Of PCOS symptoms, hirsutism has the most significant impact on the quality of life of Iranian women. *PLoS One*, 2015 Apr 15; 10(4): e0123608.
8. Hahn S, Janssen OE, Tan S, Pleger K, Mann K, Schedlowski M, et al. Clinical and psychological correlates of quality-of-life in polycystic ovary syndrome. *Eur J Endocrinol*, 2005 Dec; 153(6): 853–860.
9. Kite C, Lahart IM, Randeva HS, Kyrou I, Brown JEP. The influence of polycystic ovary syndrome (PCOS) and other related factors upon health-related quality of life in women of reproductive age: A case-control study. *J Clin Med*, 2023 Aug; 12(3): 644–666.