

# Assessment of Hirsutism Impact on Quality of Life: Association with Severity, Marital Status and PCOS

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## Abstract:-

**Objective:** The main goal was to assess how hirsutism affected the female patients' quality of life. Evaluation of potential relationships between DLQI scores and hirsutism severity, marital status, and PCOS status were secondary goals.

**Method:** At the Dermatology OPD mmc mardan, participants were systematically recruited from January 2022 to December 2022. Demographic data, mFG scores for assessing the severity of hirsutism, and DLQI ratings for assessing quality of life were all collected. Calculating descriptive statistics, conducting pertinent association tests, and applying a significance level of  $p = 0.05$  were all parts of the statistical analysis.

**Result:** The 80 participants were 32.5 years old on average. There were three levels of hirsutism severity: mild ( $n = 4$ ), moderate ( $n = 6$ ), and severe ( $n = 7$ ). DLQI ratings and hirsutism severity did not correlate in a way that was statistically significant ( $p = 0.363$ ). Similarly, PCOS status was linked to considerably higher DLQI ratings, but marital status had no significant impact on DLQI levels ( $p = 0.05$ ).

**Conclusion:** The study found that hirsutism had a considerable negative influence on the patients' quality of life. Even though there were no connections between DLQI scores and the degree of hirsutism or marital status, it was discovered that PCOS increased the psychological load. These findings highlight the necessity of holistic care strategies, particularly for patients with hirsutism brought on by PCOS, in order to improve their wellbeing. Larger sample sizes and different demographics in future studies may yield more in-depth understandings of these linkages.

**Keywords:-** PCOS, Hirsutisim, Women's, Life Quality, Education.

## I. INTRODUCTION

The most prevalent endocrinological condition affecting women of reproductive age is polycystic ovarian syndrome (PCOS), which has 8–13% prevalence<sup>1</sup>. According to the Rotterdam diagnostic standards, hyperandrogenism is regarded as a key factor in the pathogenesis of PCOS<sup>2</sup>. Acne, metabolic (increased prevalence of obesity, type 2 diabetes, and cardiovascular disease), psychological (depression, disordered eating, body image distress, and decreased quality of life) and reproductive (irregular menstruation, infertility, and pregnancy complications) traits are linked to PCOS<sup>3</sup>. The first-line treatment for PCOS is advised to be lifestyle modification. However, pharmaceutical medicines, such as the combined oral contraceptive pill (COCP), anti-obesity drugs, metformin, and anti-androgen medications, could be used for clinical care in some situations where lifestyle control is failed<sup>4</sup>. Adult women with PCOS are frequently prescribed the COCP to treat their irregular menstrual cycles and clinical hyperandrogenism (hirsutism and acne)<sup>5</sup>. The 2018 PCOS guidelines came to the conclusion that there was insufficient evidence to support the use of any of the identified anti-androgen medicines in PCOS, despite the fact that anti-androgens and their mechanisms of action hint at possible advantages. To our knowledge, no systematic reviews have looked at the use of anti-androgens in the management of PCOS. Existing systematic reviews, including a network meta-analysis, have focused on women with idiopathic hirsutism or larger hirsute populations<sup>6</sup>. Acne, hirsutism, hypertrichosis, seborrhea, and alopecia are

among the aesthetic manifestations of hyperandrogenism that are frequently seen in women with this illness. In addition to a variety of reproductive problems and psychological difficulties, they also exhibit metabolic dysfunction linked to obesity, insulin resistance, hyperinsulinemia, and diabetes<sup>7</sup>. While mental health and menstrual abnormalities were the most upsetting QOL categories in unmarried adolescents with PCOS in India, regionally, infertility and menstrual abnormalities were most significantly influencing QOL in Iran<sup>8</sup>. Age, socioeconomic status, education level, societal pressure to improve appearance, trust in the healthcare provider (HCP) to treat PCOS symptoms, parental criticism because of PCOS, a family history of PCOS, excessive physical activity, and BMI are additional potential factors that may affect the quality of life (QOL) of women with PCOS<sup>9-10</sup>. In Pakistan, 48% of the 212 million people in this age group are female, making up one-third of the population<sup>11-12</sup>.

**II. METHODOLOGY**

This study was carried out at the Mardan Medical Complex's Dermatology Outpatient Department (OPD). The purpose of the study was to evaluate how hirsutism affects

quality of life and its relationships to hirsutism severity, marital status, and PCOS status. The study included 80 female hirsute individuals in total. Between January 2022 and December 2022, patients who presented to the Dermatology OPD were sequentially recruited. Ages of the patients ranged from 15 to 50. Age, marital status, and pertinent medical history, including PCOS status, were noted among the participant's demographic data. Utilizing the Modified Ferriman-Gallwey (mFG) scoring system, the severity of hirsutism was assessed. The impact of hirsutism on participants' quality of life was evaluated using DLQI scores. The DLQI is a popular survey that examines several facets of life quality impacted by skin disorders. Continuous variables like age and DLQI scores were given descriptive statistics, including mean and standard deviation. Using the proper statistical methods (e.g., t-tests, ANOVA), associations between DLQI scores and the degree of hirsutism, marital status, and PCOS status were examined. Statistical significance was defined as a p-value 0.05. The study was carried out in compliance with ethical standards. Before the study got started, it received ethical approval from the bkmc-ethical committee. Before they were included, all individuals gave their informed consent. Data analysis was performed using spss vr 24.

**III. RESULTS**

Total 80 women were examined at opd . Following data was obtained.

Table: 1 variable with dlqi score and p-value

Variables	Mean dlqi score	p-value
Age group	15-30 years	N/A
	>30 years	
hirsutisim	Mild	0.363
	Moderate	
	Severe	
Marital status	Married	0.05
	Un married	
occupation	Student	N/A
	House wife	
	employed	
education	No education	N/A
	Secondary	
	graduate	
pcos	Present	0.03
	absent	
Socio-economic status	Can Afford	N/A
	Will manage	
	Have to manage	

Table 2: variables with percentages and participants

Variable		Percentages	N= participants	
hirsutisim	Mild	21%	17	
	Moderate	41%	33	
	severe	38%	30	
Scio-economic status	Can afford	46%	26	
	Will manage	37%	37	
	Have to manage	17%	17	
pcos	Present	Mild hirsutisim	17.4%	4
		Moderate hrsutism	30.4%	7
		Severe hirsutisim	52.2%	12
	absent	Mild hirsutisim	20%	11
		Moderate hrsutism	44.2%	26
		Severe hirsutisim	33.8%	20

#### IV. DISCUSSION

Participants in the study were split into two age groups: 15–30 years and >30 years. Women over the age of 30 were found to have a mean DLQI score that was considerably higher (8.70) than younger women (5.69). This shows that hirsutism may have a more negative effect on older women's quality of life. There are three levels of hirsutism severity: mild, moderate, and severe. With increasing hirsutism severity, the mean DLQI score increased. In spite of the fact that severe hirsutism had a higher mean DLQI score (7.79) than mild (4.49) or moderate (6.62), the p-value (0.363) indicates that this difference was not statistically significant. This suggests that there may not be a substantial difference in the severity categories for the influence on quality of life. In comparison to single women, married women had a higher mean DLQI score (8.63). The difference has a p-value of 0.05, which denotes that it is statistically significant but not significantly so. This suggests that, when compared to single women, married women may face a more pronounced impact from hirsutism on their quality of life. Based on profession, the study examined the DLQI scores. Housewives (8.11) and employed people (8.1) both exhibited higher mean DLQI scores than students (5.41) despite the absence of p-values. This shows that people who work or perform household duties may be more affected by hirsutism's negative effects on their quality of life. Participants in the study were grouped according to their degree of education. The highest mean DLQI score was found among those with no formal education (11), followed by graduates (7.40) and people with only a secondary education (6.21). The participants' level of schooling was likewise related to QOL. Literature suggests that as one's education level rises, they become more conscious of their surroundings and other people's differences. This causes them to be more critical of themselves and less satisfied with themselves, which eventually affects their quality of life<sup>13</sup>. It is difficult to determine statistical significance in the absence of p-values. However, it may be assumed that people with less education might see a bigger difference in their quality of life. The Endocrine Society, the Androgen Excess and PCOS Society, and the European Society of Endocrinology all recommend screening women when there is a suspicion of elevated androgens (for example, oligomenorrhea or moderate-to-severe hirsutism with mFG score >15). A positive hirsutism

score is defined as mFG 8 in Caucasian and women of African descent. It is important to measure both morning total and free testosterone levels<sup>14</sup>. Participants with PCOS had a mean DLQI score that was considerably higher (9.86) than that of participants without PCOS (5.59). There is a statistically significant difference, as shown by the low p-value of 0.03. This result underlines the fact that women with PCOS are more severely affected by hirsutism's effects on quality of life. Three subgroups of socioeconomic position were identified: Can Afford, Will Manage, and Have to Manage. The DLQI score of participants who can afford was the lowest on average (only 4), indicating a less drastic impact on their quality of life. The highest mean DLQI score (5.06) was obtained by those who have to manage, which would suggest a greater influence. The lack of p-values, however, makes it difficult for us to assess statistical significance. The distribution of participants across different categories is shown in table 2, which sheds light on the prevalence of various characteristics and their impact on how hirsutism affects quality of life.

#### V. CONCLUSION

The results of the study indicate that PCOS has a significant impact on DLQI scores, while hirsutism severity and marital status may not. These findings highlight the significance of taking into account underlying disorders, such as PCOS, when estimating the psychological impact of hirsutism. It's vital to recognize that these results could be impacted by restrictions and potential confounding variables. Deeper insights into these correlations might be provided by additional study using larger and more diverse sample sizes.

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