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A Study to Assess the Effectiveness of Nurse Led Intervention on Quality of Life Among Women with Polycystic Ovarian Syndrome in Selected Hospitals, Krishnagiri.

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Abstract:

Background: Polycystic Ovarian Syndrome (PCOS) is a common endocrine disorder among reproductive-age women and is associated with menstrual irregularities, metabolic disturbances, infertility, and psychological distress, all of which adversely affect quality of life (QOL). **Objectives:** To evaluate the effectiveness of nurse-led interventions on quality of life among women with PCOS. **Methods:** A quantitative quasi-experimental pretest–posttest control group design was adopted. Sixty women aged 25–35 years with clinically diagnosed PCOS were selected using purposive sampling from two hospitals in Krishnagiri, Tamil Nadu, India. Participants were assigned to experimental (n = 30) and control (n = 30) groups. Baseline QOL was assessed using a modified WHOQOL scale. **Results:** In the pretest, the majority of participants in both groups had poor QOL. Post-intervention, 53% of the experimental group achieved very good QOL compared with only 10% in the control group. The mean QOL score in the experimental group increased from 23.5 ± 7.87 to 40.75 ± 11.27 ($t = 5.612$, $p < 0.001$). Posttest comparison showed significantly higher scores in the experimental group than in the control group (40.75 ± 11.27 vs. 25.9 ± 9.84 ; $t = 4.44$, $p < 0.05$). **Conclusion:** Nurse-led interventions significantly improved the quality of life among women with PCOS and can be incorporated into routine management to enhance overall well-being.

Keywords: Hand Hygiene, Knowledge, School children

INTRODUCTION

Life's beauty is reflected in kindness, love, and shared relationships, with women playing a central role in family well-being. Women constitute about 49.73% of the global population, and their health is influenced by physical, social, economic, lifestyle, and cultural factors. Common female-specific health issues include menstrual disorders, endometriosis, hormonal imbalances, and breast diseases. Poor health significantly reduces quality of life (QOL), making early diagnosis, treatment, and prevention essential. Polycystic Ovarian Syndrome (PCOS) is a complex endocrine disorder characterized by chronic anovulation and hyperandrogenism, often linked to altered LH:FSH ratios and genetic predisposition.

Clinical features include menstrual irregularities, polycystic ovaries, obesity, infertility, acne, hirsutism, and metabolic disturbances. PCOS accounts for about 75% of anovulatory infertility and affects 6–13% of reproductive-aged women, with up to 70% remaining undiagnosed. Although incurable, symptoms can be managed through treatment and lifestyle modification. The condition is also associated with long-term risks such as diabetes, hypertension, cardiovascular disease, and endometrial cancer, along with psychological distress and social stigma, all of which impair QOL. PCOS is a major global health concern and a leading cause of infertility. Prevalence varies by diagnostic criteria and region, with studies reporting rates from about 5.5% to 19.6%.

Indian data indicate high prevalence and significant metabolic complications. Women with PCOS often experience poor physical, psychological, social, and environmental QOL, increased mental health problems, and substantial economic burden. Despite growing evidence, gaps remain in early diagnosis, standardized management, and patient-centred care. Clinical observations also reveal that many affected women struggle with self-care and satisfaction with health management. Therefore, studying the quality of life among women with PCOS is essential to guide effective interventions and improve overall well-being.

OBJECTIVES

- To assess the Quality of Life among women with PCOS in experimental group and control group.
- To evaluate the effectiveness of Nurse Led Intervention on Quality of Life among women with PCOS in the experimental group.
- To find out the association between the level of Quality of Life among the women with PCOS with the selected demographic variables in the experimental group and control group.
- To find out the association between the level of Quality of Life among the women with PCOS with the selected Clinical Variables in the experimental group and control group.

METHODOLOGY

A quantitative quasi-experimental pretest–posttest control group design was used to evaluate the effectiveness of nurse-led interventions on quality of life (QOL) among women with polycystic ovarian syndrome (PCOS). The study was conducted in two multispecialty hospitals in Krishnagiri, Tamil Nadu, India—Jeeva Hospital (experimental group) and Kauvery Hospital (control group).

The target population comprised women aged 25–35 years with clinically diagnosed PCOS. Using non-probability purposive sampling, 60 participants were recruited (30 per group), based on prevalence estimates with 95% power and 5% significance level. Women who were critically ill, undergoing surgery, or having multiple comorbidities were excluded.

Baseline demographic and clinical data were collected using a structured questionnaire. Quality of life was assessed using a modified WHO Quality of Life (WHOQOL) scale consisting of 20 items on a 5-point Likert scale. Content validity was established by experts, and reliability (split-half method) yielded $r = 0.90$.

A pilot study with 10 participants confirmed feasibility. The experimental group received individualized nurse-led interventions (assessment, lifestyle advice, advocacy, and self-management education) for approximately 30 minutes, while the control group received routine care.

Ethical approval was obtained, and written informed consent was secured from all participants. Confidentiality and the right to withdraw were ensured. Data were analyzed using descriptive statistics (frequency, percentage, mean, standard deviation) and inferential statistics (paired t-test and chi-square test). Statistical significance was set at $p < 0.05$.

RESULTS:

The table 1 shows that most participants in both groups were aged 20–25 years (53% experimental; 43% control). The majority had higher secondary or graduate education, were employed in private or self-employment sectors, and belonged to the Hindu religion. Most participants were from middle socioeconomic status and rural areas. A family history of PCOS was present in 60% of the experimental group and 50% of the control group.

In the pretest, the majority of women in both groups had poor quality of life (73% experimental; 80% control). After the intervention, the experimental group showed marked improvement, with 53% attaining very good quality of life and only 20% remaining in the poor category. In contrast, most participants in the control group (63%) continued to have poor quality of life, with only 10% reaching very good quality of life.(Table 2)

The mean quality of life score in the experimental group increased from 23.5 ± 7.87 in the pretest to 40.75 ± 11.27 in the posttest. The paired t-test value ($t = 5.612$, $df = 29$) indicated a statistically significant improvement ($p < 0.001$), demonstrating the effectiveness of the nurse-led intervention. (Table 3)

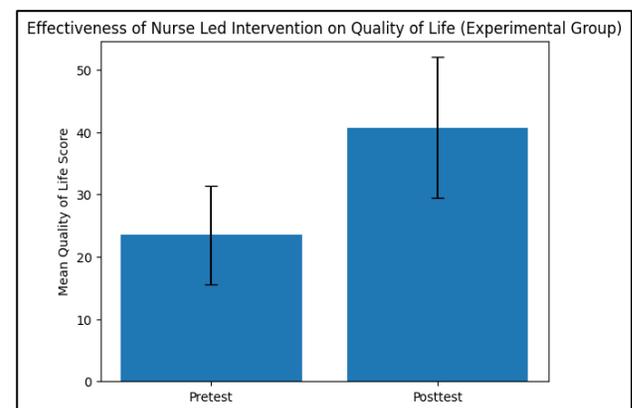


Table 4 presents the comparison of post-test Quality of Life scores between the experimental and control groups using an independent t-test. The experimental group showed a higher average score (Mean = 40.75, SD = 11.27) than the control group (Mean = 25.9, SD = 9.84). The obtained t value of 4.44 with 58 degrees of freedom is statistically significant at the 0.05 level.

Table 1: Frequency and Percentage Distribution of Samples According to Demographic Variables (N = 60)

S. No	Demographic Variable	Category	Experimental Group (n=30) f (%)	Control Group (n=30) f (%)
1	Age (years)	20–25	16 (53%)	13 (43%)
		26–30	9 (30%)	12 (40%)
		31–35	5 (17%)	5 (17%)
2	Education	Illiterate	3 (10%)	2 (7%)
		Secondary	4 (13%)	6 (20%)
		Higher Secondary	8 (27%)	7 (23%)
		Graduate	9 (30%)	7 (23%)
		Postgraduate	6 (20%)	8 (27%)
3	Occupation	Self-employment	11 (37%)	12 (40%)
		Private employment	12 (40%)	11 (37%)
		Government employment	7 (23%)	7 (23%)
4	Religion	Hindu	18 (60%)	24 (80%)
		Muslim	4 (15%)	3 (10%)
		Christian	8 (25%)	3 (10%)
5	Socioeconomic Status	Upper	3 (10%)	3 (10%)
		Middle	18 (60%)	15 (50%)
		Lower	9 (30%)	12 (40%)
6	Area of Residence	Urban	11 (37%)	7 (23%)
		Rural	19 (63%)	23 (77%)
7	Family History of PCOS	Yes	18 (60%)	15 (50%)
		No	12 (40%)	15 (50%)

Table 2: Pretest and Post-test level of quality of life of women with PCOS among the experimental group and control group.

Level of quality Of life	Pretest				Post test			
	Experimental Group		Control Group		Experimental group		Control Group	
	f	%	f	%	f	%	f	%
Poor	22	73	24	80	6	20	19	63
Good	8	27	6	20	8	27	8	27
Very Good	0	0	0	0	16	53	3	10

Table 3: Effectiveness of Nurse Led Intervention on Quality of Life among experimental group.

Experimental group	Level of test	Mean	SD	Paired “t” Test	Df
Level of Quality of Life	Pretest	23.5	7.87	5.612**	29
	Post test	40.75	11.27		

Significant at $p < 0.001$ **Table 4: Independent t test value of posttest mean score on Quality of Life among experimental group and control group.**

Groups	Post test		Independent ‘t’ test	Df
	Mean	SD		
Experimental group	40.75	11.27	4.44**	58
Control group	25.9	9.84		

Significant at $p < 0.05$

DISCUSSION

The study results showed that, in the pretest, the majority of participants in both groups had poor quality of life (QOL). In the experimental group, 22 (73%) had poor QOL and 8 (27%) had good QOL, whereas in the control group 24 (80%) had poor QOL and 6 (20%) had good QOL. Following the intervention, the experimental group demonstrated marked improvement: only 6 (20%) remained with poor QOL, 8 (27%) had good QOL, and the majority 16 (53%) achieved very good QOL.

In contrast, the control group showed minimal improvement, with 13 (63%) continuing to have poor QOL, 5 (27%) having good QOL, and only 2 (10%) attaining very good QOL. The mean QOL score in the experimental group increased from 23.5 ± 7.87 (42.7%) in the pretest to 40.75 ± 11.27 in the posttest, with a mean percentage difference of 31.39. This improvement was statistically significant (paired $t = 5.612$, $p < 0.01$). In the control group, the mean score increased slightly from 23.05 ± 6.7 (41.9%) to 25.9 ± 9.84 (47.09%), with a small mean percentage difference of 5.19.

Comparison of posttest scores between groups revealed significantly higher QOL in the experimental group (40.75 ± 11.27) compared with the control group (25.9 ± 9.84). The independent t-test value ($t = 4.44$, $p < 0.01$) indicated a statistically significant difference, demonstrating the effectiveness of the nurse-led intervention in improving quality of life among women with PCOS.

CONCLUSION

The study concluded that nurse-led interventions significantly improved the quality of life among women with PCOS. The experimental group showed marked improvement compared to the control group, with statistically significant differences in QOL scores. Therefore, nurse-led interventions are effective and can be incorporated into routine PCOS management to enhance overall well-being.

REFERENCE

1. Aayushi Mathur (2023), Prevalence of polycystic ovary syndromes (PCOS) in adolescent girls and young women: A questionnaire-based study, *Indian Journal of Obstetrics and Gynecology Research*
2. Albu D, Albu A. The relationship between anti-Müllerian hormone serum level and body mass index in a large cohort of infertile patients. *Endocrine*. 2019 Jan;63(1):157-163.
3. Anju E johan(2022), Polycystic ovarian syndrome, *Lancet Diabetes Endocrinol*. 2022 Sep;10(9):668-680. doi: 10.1016/S2213-8587(22)00163-2. Epub 2022 Aug 4.
4. Armeni E, Lambrinouadaki I. Cardiovascular Risk in Postmenopausal Women with Polycystic Ovary Syndrome. *Curr Vasc Pharmacol*. 2019;17(6):579-590.
7. Boyle JA, Xu R, Gilbert E, Kuczynska-Burggraf M, Tan B, Teede H, Vincent A, Gibson-Helm M. Ask PCOS: Identifying Need to Inform Evidence-Based App Development for Polycystic Ovary Syndrome. *Semin Reprod Med*. 2018 Jan;36(1):59-65.
8. Carvalho LML, Dos Reis FM, Candido AL, Nunes FFC, Ferreira CN, Gomes KB. Polycystic Ovary Syndrome as a systemic disease with multiple molecular pathways: a narrative review. *Endocr Regul*. 2018 Oct 01;52(4):208-221.
9. Ding DC, Chen W, Wang JH, Lin SZ. Association between polycystic ovarian syndrome and endometrial, ovarian, and breast cancer: A population-based cohort study in Taiwan. *Medicine (Baltimore)*. 2018 Sep;97(39):e12608.
10. Devin JK, Nian H, Celedonio JE, Wright P, Brown NJ. Sitagliptin Decreases Visceral Fat and Blood Glucose in Women With Polycystic Ovarian Syndrome. *J Clin Endocrinol Metab*. 2020 Jan 01;105(1):136-51.

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