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A STUDY ON PSYCHOLOGICAL WELLBEING AND THE PREVALENCE OF ANXIETY AND DEPRESSION AMONG WOMEN DIAGNOSED WITH PCOS IN A TERITIARY HEALTH CARE CENTRE

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ABSTRACT

Background: Polycystic Ovary Syndrome (PCOS) is a prevalent endocrine and metabolic disorder affecting women of reproductive age with estimated prevalence ranging from 3.7% to 22.5%. Endocrine and psychiatric disorders, especially mood disorders, seem to be interconnected and affecting each other. Given the high prevalence of PCOS and the physical and psychological burden the disease appears to place on women, international evidence-based guidelines for the assessment and management of PCOS recommend that mental health problems should be assessed and managed by healthcare professionals. **Aim:** To study the psychological wellbeing and the prevalence of anxiety and depressive disorders among women diagnosed with polycystic ovarian syndrome in a teritiary health care centre. **Methods & Materials:** A hospital-based cross-sectional study in which 40 patients of Polycystic Ovarian Syndrome (PCOS) as per Rotterdam criteria were selected. After taking informed consent, sociodemographic details followed by the assessment of psychological wellbeing and the prevalence of anxiety and depression using International classification of diseases (ICD-10), Hamilton anxiety rating scale and Hamilton depression rating scale and General health questionnaire 30 (GHQ-30) has been done in these patients. **Results:** This study results show that the prevalence of anxiety in women with polycystic ovarian syndrome is 45% and the prevalence of depression is 27%. There is significant association between infertility and symptoms of both anxiety and depression. **Conclusion:** In conclusion, this research highlights high levels of psychological distress found in women with PCOS and an increased prevalence of depression and anxiety, hence the need for comprehensive assessment of all women with PCOS for psychiatric co-morbidities particularly anxiety and depression.

KEYWORDS :

INTRODUCTION:

Polycystic Ovary Syndrome (PCOS) is a prevalent endocrine and metabolic disorder affecting women of reproductive age. According to Indian fertility society prevalence of PCOS ranges from 3.7% to 22.5%. [1]

The classic features include menstrual irregularity, biochemical or clinical hyperandrogenism, and ultrasound appearance of polycystic ovaries. [1]

The most widely recognized hypothesis regarding the etiopathogenesis is that the development of PCOS is due to insulin resistance and hyperinsulinemia which subsequently lead to hyperandrogenism [2]. Endocrine and psychiatric disorders, especially mood disorders, seem to be interconnected and affecting each other. [2]

The neuroendocrine systems are crucial not only in reproductive function, but also in mood regulation**.** The higher prevalence of psychiatric disorders in patients with PCOS, especially depression and anxiety disorders, may be due to both hyperandrogenism and the resulting somatic symptoms.[3] PCOS symptoms include obesity which is prevalent in 50% of cases, hirsutism, and acne, which result from increased androgen sensitivity even at average androgen level.[3]

These symptoms can be stigmatizing for women and lower their quality of life, and lead to depression and anxiety.[4] The frequency of depression in female patients with PCOS is variable in different studies (28–64%), while anxiety disorders range from 34 to 57%.[4]

The Indian literature on psychological aspects of PCOS is inconclusive and inconsistent. Given the high prevalence of PCOS and the physical and psychological burden the disease appears to place on women, international evidence-based guidelines for the assessment and management of PCOS recommend that mental health problems should be assessed and managed by healthcare professionals.

AIM:

To study the psychological wellbeing and the prevalence of anxiety and depressive disorders among women diagnosed with polycystic ovarian syndrome in a teritiary health care centre.

OBJECTIVES:

1. To assess the psychological wellbeing of people diagnosed with PCOS
2. To study the prevalence of anxiety and depression among outpatients suffering from PCOS
3. To determine the relation between anxiety, depression and the clinical manifestations of PCOS.

MATERIALS AND METHODS:

This is a hospital based cross-sectional study conducted at ASRAMS, a teritiary care centre in eluru, Andhra Pradesh during May 2024 to September 2024. Ethics committee approval was obtained. 40 females in the age group 0f 18-45 years who were diagnosed with PCOS at Gynecology outpatient department using the Rotterdam criteria who consented for the study without any previous psychiatric illnesses are then interviewed at psychiatry outpatient department further. Sample size was calculated by using previous indian studies that reported the prevalence of PCOS in India from 3.7% to 22.5%.

Study Tools:

International Classification of Diseases -10 (ICD) criteria for diagnosis of depression and anxiety among PCOS women.

General Health Questionnaire 30 for assessing the psychological wellbeing

Hamilton Depression Rating Scale

Hamilton Anxiety Rating Scale

Statistical Analysis:

Data entry and processing was done using Microsoft excel and it was statistically analysed using Microsoft excel version 2010, Epi info software 3.01, and Statistical package for social sciences (SPSS Version 29).

The data was recorded in the form of mean and standard deviation for continuous variables; frequencies and percentage for categorical variables.

The difference in two groups was tested for statistical significance using the Chi-square test, p value less than 0.05 is considered to be statistically significant.

All results are presented in tabular form.

RESULTS:

Table -1

SOCIO Demographic Variable	Frequency N (%)
AGE	
18-25	22 (55%)

25-35	12 (30%)
35-45	6 (15%)
EDUCATION	
Schooling	18 (45%)
College	22 (55%)
MARITAL STATUS	
Single	19 (47%)
Married	21 (53%)
Divorced/Widowed/Separated	0
EMPLOYMENT	
Unemployed	21 (52%)
Employed	19 (47%)

Socio Demographic Variable	Frequency N (%)
RELIGION	
Hindu	26 (65%)
Muslim	4 (10%)
Christian	10 (25%)
others	
DOMICILE	
Rural	15 (37%)
Urban	25 (62%)

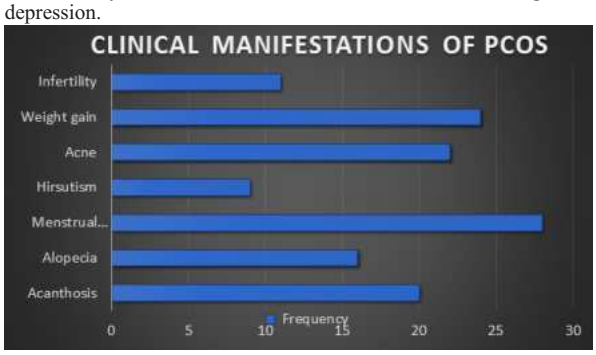
Table-2:

ANXIETY HAM –A Scores	N	%
MILD (<17)	9	50
MODERATE (18-24)	7	38
SEVERE (25-30)	2	11
VERY SEVERE	0	0

Table- 3:

DEPRESSION HDRS Scores	N	%
MILD (7-17)	6	54
MODERATE (18-24)	4	36
SEVERE (>25)	1	9

Out of the 40 females studied 18 females were found to be suffering with anxiety and 11 females were found to be suffering with depression.



Menstrual irregularities and weight gain are the two most common symptoms seen in women with PCOS.

Table-4:

Pcos Clinical Manifestations	ANXIETY N (%)		Chi Square Value $\chi 2$	p Value
	PRESENT	ABSENT		
ACANTHOSIS	12	8	0.833	0.362
ALOPECIA	13	8	2.381	0.123
HIRSTUISM	6	3	3.619	0.057
ACNE	14	7	5.143	0.023*
MENSTRUAL IRREGULARITIES	16	12	11.111	0.001*
WEIGHT GAIN	12	12	0.083	0.773
INFERTILITY	8	3	4.286	0.038*

The above table shows that women with symptoms of menstrual irregularities, acne and infertility showed significant association with the presence of anxiety.

PCOS Clinical Manifestations	DEPRESSION N (%)		Chi Square Value $\chi 2$	P Value
	PRESENT	ABSENT		
ACANTHOSIS	8	12	0.000	1.000
ALOPECIA	11	9	0.083	0.654
HIRSTUISM	5	4	0.641	0.424
ACNE	11	11	0.444	0.505
MENSTRUAL IRREGULARITIES	10	18	0.444	0.505
WEIGHT GAIN	8	12	0.056	0.814
INFERTILITY	9	2	7.619	0.006*

The table shows there is statistically significant association between infertility and presence of depression among the study population.

DISCUSSION:

Majority (55%) of the study population is between the age group 18-25.

Menstrual abnormalities was the most common symptom seen in the study population seen in 70% of females. Second most common symptoms were found to be weight gain and acne seen in 60% and 55% of the study sample.

GHQ-30 questionnaire responses are scored on a four-point Likert scale with low scores reflecting good psychological wellbeing and high scores reflecting psychological distress.

Higher scores were reported by 14 females on factors corresponding to depression and 20 reported higher scores on factors corresponding to anxiety.

10 females reported higher scores on factors corresponding to coping difficulties, whereas high scores on factors corresponding to feelings of incompetence were found in 18 females.

The prevalence of anxiety in this study of women with polycystic ovarian syndrome is 45% and the prevalence of depression is 27%.

Similar findings were observed in a study done in Mumbai where the prevalence of anxiety disorders was 38.6%, and the prevalence of depressive disorders was 25.7% in a sample of 70 subjects.

In a study done in Telangana it was 62.9% whereas Habib et al reported low prevalence of anxiety and depression with 25% and 20% respectively.

In contrast, a study done in Pakistan revealed a 30% prevalence of depression and 15% prevalence of anxiety in a sample of 137 patients.

Our study found menstrual irregularities to be the most common symptom which is similar to other studies like Chaudhari et al and Madhuri et al.

According to this study there is significant association between infertility and symptoms of both anxiety and depression which is consistent with findings of studies like Deeks et al [8], Chaudhari et al and Madhuri et al.

CONCLUSION:

In conclusion, this research highlights high levels of psychological distress found in women with PCOS and an increased prevalence of depression and anxiety, hence the need for comprehensive assessment of all women with PCOS for psychiatric co-morbidities particularly anxiety and depression.

Given that lifestyle modifications are a first-line treatment for PCOS, early screening and treatment of depression, anxiety are essential for comprehensive management and improved quality of life in this population.

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Conflicts Of Interest – Nill

REFERENCES:

1. Madhuri V, Koteswaramma CH, Snehika A. Prevalence of depression and anxiety among polycystic ovarian syndrome patients: a cross-sectional study. Int J Community Med Public Health [Internet]. 2023 Jun. 29 [cited 2024 Oct. 19];10(7):2566-70.
2. Chaudhari AP, Mazumdar K, Mehta PD. Anxiety, depression, and quality of life in women with polycystic ovarian syndrome. Indian J Psychol Med 2018;40:239-46
3. Rodriguez-Paris D, Remlinger-Molenda A, Kurzawa R, Głowińska A, Spaczyński R, Rybakowski F et al. Psychiatric disorders in women with polycystic ovary syndrome. Psychiatria Polska. 2019;53(4):955-66.
4. Wang G, Liu X, Zhu S, Lei J. Experience of mental health in women with Polycystic Ovary Syndrome: a descriptive phenomenological study. Journal of Psychosomatic Obstetrics & Gynecology. 2023 Dec 31;44(1):2218987.
5. Batool S, Ul ain Ahmed F, Ambreen A, Sheikh A, Faryad N. Depression and Anxiety in Women with Polycystic Ovary Syndrome and Its Biochemical Associates. J South Asian

Feder Obst Gynae 2016;8(1):44-47.
6. Hussain A, Chandel RK, Ganie M, Dar MA, Rather YH, Wani ZA, et al. Prevalence of psychiatric disorders in patients with a diagnosis of polycystic ovary syndrome in Kashmir. Indian J Psychol Med 2015;37:66-70
7. Barnard L, Ferriday D, Guenther N, Strauss B, Balen AH, Dye L. Quality of life and psychological wellbeing in polycystic ovary syndrome. Human reproduction. 2007 Aug 1;22(8):2279-86.
8. Deeks AA, Gibson-Helm ME, Teede HJ. Anxiety and depression in polycystic ovary syndrome: a comprehensive investigation. Fertility and sterility. 2010 May 1;93(7):2421-3.