Polycystic Ovarian Syndrome and Mental Health Prospectus.

POLAGANI VARUN
3rdyear psychiatry postgraduate NRI institute of Medical Sciences Sangivalasa Visakhapatanam

Rekhadutt (Professor and HOD department of psychiatry)
Chitralekha Murthy (consultant gynecologist and obstretician)
Kalakonda Meghana (3rdyear psychiatry postgraduate)
Aruru Aravind (2nd year psychiatry postgraduate)
Mullapudi Balaram sai (2nd year psychiatry postgraduate)
N.Deep Chand (Senior resident department of psychiatry)
Grahita Janapareddy (Assistant professor psychiatry)

ABSTRACT
Polycystic ovary syndrome (PCOS) is the most common endocrine disorder in women of reproductive age. Symptoms include amenorrhea, hirsutism, infertility, obesity, acne vulgaris and male pattern baldness. Polycystic ovary syndrome is a stigmatizing condition that affects women's self-esteem, mental health and quality of life (QOL). This did not get enough attention in India.
Aims and Objectives: (1) To investigate the prevalence of anxiety and depression in women with PCOS (2) To determine whether PCOS symptoms are associated with mental illness, and (3) To determine the impact of mental illness on quality of life.
 Instruments.Quality of life was assessed by the World Health Organization-QOL-BREF. Binary logistic regression was applied to examine the association of symptoms with psychosis. Quality of life scores of patients with and without psychosis were compared using the Mann-Whitney U test.
 Conclusion and Recommendations: The prevalence of anxiety and depression in our sample was 38.6% and 25.7%, respectively. Infertility and hair loss are linked to stress, and acne is linked to depression. Hirsutism is associated with poor mental quality of life. The quality of life of patients with mental illness is lower than that of patients without mental illness.
Keywords: stress, depression, polycystic ovary syndrome, quality of life, symptoms

I.   INTRODUCTION
Polycystic ovary syndrome (PCOS) is the most common endocrine disease in pediatric women and affects approximately 5-10% of pediatric women. . . Western world. [1] The Fertility Institute of India reports that the incidence in India is 3.7%-22.5%.

[2] Women with PCOS have many symptoms such as amenorrhea, oligomenorrhea, hirsutism, infertility or infertility, anovulation, weight gain or obesity, acne vulgaris, and male pattern baldness. They also have more depression and anxiety than women in the general population. [3] Therefore, both international and Indian guidelines agree that psychological problems should be considered in all women with PCOS and these women should be tested for anxiety and depression. However, a literature search revealed only four Indian studies on this topic. Two of the studies measured the prevalence of anxiety and depression in women with PCOS only and found the prevalence of anxiety to be 28% and 39%, respectively, and the prevalence of depression to be 11% and 25%, respectively. [5,6] Researcher: Sundararaman et al. In 2008 [7] analyzed mental disorders in these patients in a health survey and found that it was associated with obesity, pregnancy, acne and hirsutism. On the other hand, a study conducted by Bhattacharya and Jha[8] in 2010 evaluated the impact of only four symptoms (obesity, acne, hirsutism, and acanthosis) on depression and visual impairment. There were significant relationships between variables. These findings contrast sharply with each other. Despite evidence that stress is a significant problem in PCOS, no research on stress has been conducted in India to date. [3] International studies have shown that polycystic ovary syndrome has a negative impact on patients' quality of life (QOL). [4] There is a worldwide focus on this issue because it shows the true impact of the disease on patients' lives. [4]

India's view on quality of life in PCOS patients has not yet been studied.

The current understanding of PCOS treatment is that it is important to understand the symptoms from the patient's perspective. We need information about which symptoms will have the greatest impact so that new treatments can be targeted to improve overall outcomes for all patients. [4] Indian literature on PCOS psychology is scant and inconsistent. This lack of knowledge is related to the prevalence of polycystic ovary syndrome and the physical and mental burden of the disease on women. Therefore, the need for this study is obvious. To our knowledge, this is one of the few studies in India focusing on anxiety and depression in women with PCOS, focusing on symptoms and well-being.

II. AIMS AND OBJECTIVES

To examine the prevalence of anxiety and depression in outpatients with PCOS To determine whether PCOS has specific symptoms associated with the onset of mental illness To compare the quality of life of people with and without mental illness.

III. MATERIALS AND METHODS

Sample Selection In studies in India, the prevalence of PCOS in India varies between 3.7% and 22.5% [2] and hence, it was assumed to be 23% for the purpose of this study. . A final confidence interval of 95% and a margin of error of 10% were determined. The formula used to calculate the sample size is $n = z2 \times p (1-p)/\varepsilon2$; where the Z score at the 95% confidence level is 1.96. The required sample is 68, i.e. 70. Therefore, consecutive patients diagnosed with PCOS according to the Rotterdam criteria [9] presented to the gynecology clinic and were evaluated for symptoms according to the Endocrine Society guidelines. They were then sent to a psychiatric facility where it was determined they met exclusion criteria. In this study, 70 patients aged between 18-45 were randomly selected after informed consent. A simple formula was used.

INCLUSION CRITERIA

Patients diagnosed with PCOS according to the Rotterdam criteria Oligoovulation and/or anovulation Hyperandrogenism Polycystic ovaries For patients, female patients of reproductive age (18-45 years) were reported.

EXCLUSION CRITERIA

Patients consulted by a psychiatrist or through careful reading of self-reported medical history and literature Patients with serious illness.

Statistical Analysis used IBM SPSS 20 software to collect data and perform statistical analyses. Sociodemographic characteristics and most of the different symptoms of polycystic ovary syndrome, anxiety and depression are shown in frequency and percentage. Binary logistic regression analysis was performed to determine the impact of polycystic ovary symptoms on the likelihood of anxiety and/or depression in women. The variables are stress and depression, which are binary, that is, present and absent.

All symptoms of PCOS were entered as dependent variables. Quality of life scores were expressed as mean, standard deviation and median. Shapiro-Wilk test was performed and it was determined that they did not comply with normal distribution. Therefore, mean scores in these domains were compared with those without the Mann-Whitney U test Results 75 consecutive patients with a gynecological diagnosis of PCOS were referred for observation. Seventy patients agreed to participate in this study. Therefore, a total of 70 women in the 18-45 age group were included in the study. The mean age of the sample was 27.65 ± 7.60 years.

SOCIODEMOGRAPHIC PROFILE

The sociodemographic profile is shown in Table 1. Prevalence of Anxiety and Depression It was determined that 27 of the 70 women examined were anxious and 18 were depressed. In other words, in our research sample, the risk of depression is 38.6% and the risk of more severe depression is 25.7%.

Disorders recorded were mixed anxiety-depressive (n = 10), other mixed anxiety (n = 7), recurrent depression (n = 6), social phobia (n = 4), generalized anxiety disorder (n = 3), panic disorder (n = 3) and dysthymia (n = 2).

Anxiety and depression are observed in ten women (14.3%). A total of 35 patients, or 50%, did not do so. The Hamilton Anxiety and Depression Rating Scale is used to assess the severity of anxiety in people with these symptoms. The results showed that the rate of mild, moderate, and severe stress was 62.90%, 29.60%, and 7.40%, respectively. On the other hand, 50 percent of people have mild symptoms, 38.8 percent have depression symptoms, and 11.10 percent have severe depression symptoms. Polycystic Ovary Syndrome Symptoms Menstrual abnormalities were the most common symptoms in the study population, occurring in 95.7% of women. The occurrence of various symptoms is shown in
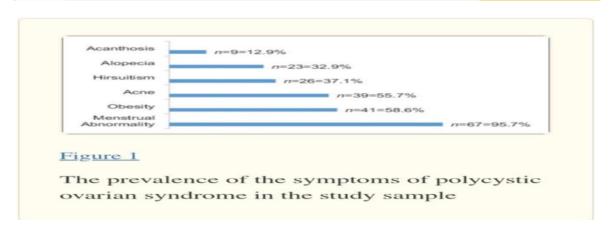
Figure 1. Impact of Mental Health on Quality of Life Of the four themes, mental health has the lowest score and average quality of life. Quality of life in four countries was compared between autistic and non-autistic patients using the Mann-Whitney U test.

Sociodemographic profile of the sample

Domain	Frequency (*n*=Number of females) (%)
Age group (years)	
<25	31 (44.3)
26-35	26 (37.1)
>35	13 (18.6)
Education	
Illiterate	0
Up to class 10	5 (7.1)
Up to class 12	24 (34.3)
Graduate	35 (50)
Postgraduate	6 (8.6)
Occupation	
Unemployed	13 (18.6)
Homemakers	15 (21.4)
Semi-skilled	4 (5.7)
Skilled	9 (12.9)
Professional	19 (27.1)
Student	10 (14.3)
Marital status	
Married	35 (50)
Unmarried	35 (50)
For married women	35
Duration of marriage (years)	
<1	1 (2.8)
2-5	7 (20)
>5	27 (77.14)
Children	
Having children	17 (48.57)
Not having any children	18 (51.42)
Number of children (*n*=17)	
1	6 (35.2)
2	8 (47.0)
3	3 (17.6)

Figure 1

The prevalence of the symptoms of polycystic ovarian syndrome in the study sample

Acanthosis — $n=9=12.9\%$
Alopecia — $n=23=32.9\%$
Hirsuitism — $n=26=37.1\%$
Acne — $n=39=55.7\%$
Obesity — $n=41=58.6\%$
Menstrual Abnormality — $n=67=95.7\%$

IV. CONCLUSION

The prevalence of anxiety is 38.6% and depression is 25.7%. Alopecia and infertility symptoms are associated with a higher likelihood of reporting stress. The odds ratio of depression with and without alopecia was 3.06:1, and the odds ratio of depression with and without infertility was 3.77:1. Acne symptoms were associated with an increased risk of depression, with a difference of 3.78:1 for depression and infertility. without acne. Patients with mental illness scored lower on three quality of life dimensions: physical health, mental health, and social and relationship quality.

Psychological quality of life of patients with hirsutism scored lower.

Clinical Implications and Recommendations

Anxiety and depression are common in patients with PCOS and this study is consistent with recommendations for screening patients with PCOS. The results of this study show that some of the symptoms of PCOS are associated with anxiety and depression. PCOS symptoms can change at any stage of the disease. Therefore, it is important that psychological assessment involves a continuous process rather than a one-time assessment. The amount of mental disorders associated with some symptoms of PCOS but not others makes it possible for an epidemic to occur. Further research on this subject will better reveal these relationships. Finally, PCOS symptoms are associated with anxiety and depression, which in turn is associated with poor quality of life. The symptoms themselves do not appear to cause a reduction in quality of life. This may mean that the emergence of psychological disorders may be instrumental in decreasing the quality of life in PCOS patients. Therefore, when these diseases occur, there are clear instructions for their treatment.

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