# A Study to Assess the Level of Depression and Anxiety among Woman with Polycystic Ovarian Disorder in Selected Hospital Nadiad City Gujarat

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| Article History | Abstract |
|---|---|
| | *Background: Polycystic Ovarian Disorder Is The Most Common Endocrine Abnormality In Women Of Reproductive Age It Is A Health Problem That Affect 1 In 10 Women Of Child Bearing Age (15-49 Year). According To Indian Fertility Society Prevalence Of Pcod Range From 3.71% To 22.5% Women With Pcod Have Experienced Adverse Social, Physical, Emotional, And Psychological Consequences And They Are At Risk Of Developing Depression, Anxiety, Sadness, And Loneliness, Which Had Negative Impact On Their Health. Aims: The Main Aim Of The Study Is To Assess The Level Of Depression And Anxiety Among Women With Polycystic Ovarian Disorder In Selected Hospital In Nadiad City, Gujarat. Objectives To Assess The Level Of Depression In Women With Pcod In Selected Hospital Of Nadiad City Gujarat To Assess The Level Of Anxiety In Women With Pcod In Selected Hospital Of Nadiad City Gujarat. To Find Out The Association Between Level Of Depression And Anxiety Among Women With Pcod In A Selected Demographic Variables. Methodology: A Cross Sectional And Descriptive Study Designed Was Used By A Researcher. 100 Women Who Having Pcod Were Selected As A Sample. Sample Were Selected From Samju Laxmi Maternity Hospital And Akshar Hospital In Nadiad City Gujarat , Data Were Analyzed By Using Descriptive And Inferential Statistic And Frequency And Percentage, Table, Graph Etc., Were Used To Represent The Statistical Data. Result: In All 100 Women With Pcod Were Entered Into This Study In Which 36% Pcod Women Have No Depression, 49% Pcod Women Have Mild Depression, 8% Pcod Women Have Moderate Depression 7%, Pcod Women Have Severe Depression. Which Is Associated With Their Demographic Variable I.E. Age, Type Of Family. In All 100 Women With Pcod 7% Women Have No Anxiety ,24% Women Have Mild To Moderate Anxiety Level ,52% Women Have Moderate To Severe Anxiety And 7% Women Have Severe Anxiety. Which Is Associated With Their Demographic Variables I.E. Age, Marital Status, Have A Child?, Source Of Information About Pcod, Duration Of Pcod?, Duration Of Treatment.Conclusion :The Result Of Present Study Shows That The Pcod Women Have A Psychological Impact In Which There Is Presence Of Mild, Moderate And Severe Level Of Depression And Anxiety In Women With Pcod.*

***Keywords:** Polycystic Ovarian Disorder, Depression, Anxiety* |
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## 1. Introduction

Polycystic ovarian disorder is a most common, complex hormone disorder in women, with prevalence of 3-22% in India. Depression and anxiety is particularly distressing symptom of PCOD, as it saps one's

vitality and make it difficult to seek help and adjust. According to studies prevalence ranging from 28 to 64% ( for depression) and 34 to 57% (for anxiety) on women with PCOD, with suicide rates seven times greater in women, compared to roughly 19% of those without it.

## Objectives
To assess the level of depression in women with PCOD in selected hospital of Nadiad city, Gujarat.
To assess the level of anxiety in women with PCOD in selected hospital of Nadiad city, Gujarat.
To find out the association between the level of depression and anxiety among women with PCOD in selected demographic variable.

## Hypothesis
**H1:** There will be significant association between level of depression and anxiety in selected demographic variable.

## Assumptions
➢     PCOD women may have some level of anxiety.
➢     PCOD women may have some level of depression.

## 2.   Material and Method
Research Approach: Quantitative research approach. Research Design: Cross- Sectional descriptive study. Research variables: assess the level of depression and anxiety among women with age 18 to 45 with PCOD. Demographic variables: age, marital status, have a child?, religion, education, type of family, family income, age of menarche , do you know about PCOD?, source of information about PCOD, duration of PCOD, taking treatment?. Duration of treatment.

## Population
women with PCOD.

## Research Setting
Hospital of Nadiad city.(Samjulaxmi maternity hospital, Akshar hospital).

## Sampling Technique
The "non- probability consecutive sample technique" was adopted in this study.

## Sample Size
100 PCOD women.

## Sample Criteria
### 1)     Inclusive Criteria
✓     Women age between 18-45 years include.
✓     Who is willingly participate in the study.
✓     Who are available during data collection.
✓     Women who are having history or detected PCOD.

### 2)     Exclusive Criteria
✓     Women who are mentally challenged.
✓     Women does not want to participate in the study.
✓     The study is delimited to selected area of Nadiad city.

## Tool for Data Collection
Section-A: it consist of demographical variable of women with age 18-45 years such as age, marital status, have a child?, religion, education, type of family, family income, age of menarche, do you know about PCOD?, source of information about PCOD, duration of PCOD, taking treatment?, duration of treatment. Section-B: Zung self-rating depression scale. Section-c Zung self-rating anxiety scale.

## 3. Result and Discussion

**Table 1:** Frequency and percentage wise distribution of sample based on demographic variables

| Demographic variables | Variables | F (100) | % |
|---|---|---|---|
| Age | 18-23 years | 40 | 40% |
| | 24-29 years | 28 | 28% |
| | 30-35 years | 17 | 17% |
| | 36-45 years | 15 | 15% |
| Marital status | Married | 51 | 51% |
| | Un married | 49 | 49% |
| Have a child? | Yes | 31 | 31% |
| | No | 69 | 69% |
| Religion | Hindu | 48 | 48% |
| | Muslim | 25 | 25% |
| | Christian | 14 | 14% |
| | Other | 13 | 13% |
| Education | Illiterate | 13 | 13% |
| | Primary-secondary | 40 | 40% |
| | Higher secondary | 35 | 35% |
| | Above | 12 | 12% |
| Type of family | Nuclear | 40 | 40% |
| | Joint | 43 | 43% |
| | Other | 17 | 17% |
| Family income | 5000-10000 | 23% | 23% |
| | 10001-20000 | 25% | 25% |
| | 20001-30000 | 23% | 23% |
| | >30000 | 29% | 29% |
| Age of menarche | <12 years | 14 | 14% |
| | 12-14 years | 37 | 37% |
| | 15-17 yeas | 35 | 35% |
| | 18-20 years | 14 | 14% |
| Do you know about PCOD? | Yes | 100 | 100% |
| | No | 0 | 0 |
| Source of information about PCOD? | Mother | 11 | 11% |
| | Friend/sister | 23 | 23% |
| | Health worker | 30 | 30% |
| | Social media | 36 | 36% |
| Duration of PCOD? | <1 years | 24 | 24% |
| | 1-3 years | 45 | 45% |
| | 4-5 years | 19 | 19% |
| | >5 years | 12 | 12% |
| Taking treatment? | Yes | 100 | 100% |
| | No | 0 | 0 |
| Duration of treatment | <1 years | 24 | 24% |
| | 1-3 years | 45 | 45% |
| | 4-5 years | 19 | 19% |
| | >5 years | 12 | 12% |

The [table:1] shows that out of 100 samples,40% women belong to age between 18-23 years,51% women are married, 69% women have no child, 48% women belong to Hindu religion, 40% women have a primary and secondary education, 43% women were living in joint family, 29% women has >30000rs monthly income, 37% women age of menarche between 12-14 year, 100% women know about PCOD, 36% women gain information about PCOD from social media,45%women PCOD

duration between 1-3 years,100% women were taking treatment, and 45% women treatment duration is between 1-3 years.

**Table:2** Analysis of the association between the selected demographic variable and depression in women with PCOD in selected hospital of Nadiad city

| Variable | options | Chi-square | Df | P-value |
|---|---|---|---|---|
| Age | 18-23 24-29 30-35 36-45 | 31.85 | 9 | 0.00021 |
| Marital status | Married Unmarried | 0.123 | 3 | 0.98 |
| Have a child | Yes No | 7.750 | 3 | 0.514 |
| Religion | Hindu Muslim Christian Other | 9.46 | 9 | 0.395 |
| Education | Illiterate Primary- Secondary Higher education Above | 20.62 | 9 | 0.014 |
| Type of family | Nuclear Joint Other | 13.108 | 6 | 0.041 |
| Family income | 5000-10,000 10,001-20,000 20,001-30,000 >30,000 | 3.87 | 9 | 0.919 |
| Age of menarche | <12 year 12-14 year 15-17 year 18-20 year | 6.301 | 9 | 0.709 |
| Do you know about PCOD? | Yes No | N/A | N/A | N/A |
| Source of information about PCOD | Mother Friend/Sister Health worker Social media | 14.23 | 9 | 0.114 |
| Duration of PCOD | <1 year 1-3 year 3-5 year >5 year | 9.167 | 9 | 0.421 |
| Taking treatment | Yes No | N/A | N/A | N/A |
| Duration of treatment | <1 year 1-3 year 3-5 year | 9.167 | 9 | 0.421 |

>5 year

In the reference association of depression among women with PCOD with demographic variable there was not significant association in marital status, have a child?, religion, education, family income, age of menarche, source of information about PCOD, duration of PCOD, duration of treatment. The categories such as a found significant in age, type of family, at p value >0.05% with level of depression.

**Table 3:** Analysis of the association between the selected demographic variable and anxiety in women with PCOD in selected hospital of Nadiad city

| Variables | Options | Chi square | DF | P-value |
|---|---|---|---|---|
| Age | 18-23 | 28.10 | 9 | 0.00091 |
| | 24-29 | | | |
| | 30-35 | | | |
| | 36-45 | | | |
| Marital status | Married | 13.28 | 3 | 0.0040 |
| | Unmarried | | | |
| Have a child? | Yes | 16.75 | 3 | 0.00079 |
| | No | | | |
| Religion | Hindu | 4.85 | 9 | 0.8466 |
| | Muslim | | | |
| | Christian | | | |
| | Other | | | |
| Education | Illiterate | 16.70 | 9 | 0.0053 |
| | Primary-secondary | | | |
| | Higher education | | | |
| | Above | | | |
| Type of family | Nuclear | 8.72 | 6 | 0.1897 |
| | Joint | | | |
| | Other | | | |
| Family income | 5000-10000 | 7.95 | 9 | 0.5388 |
| | 10001-20000 | | | |
| | 20001-30000 | | | |
| | >30000 | | | |
| Age of menarche | <12year | 4.13 | 9 | 0.9023 |
| | 12-14year | | | |
| | 15-17year | | | |
| | 18-20year | | | |
| Do you know about PCOD? | Yes | N/A | N/A | N/A |
| | No | | | |
| Source of information about PCOD | Mother | 18.81 | 9 | 0.0268 |
| | Friend/sister | | | |
| | Health worker | | | |
| | Social media | | | |
| Duration of PCOD | <1year | 35.24 | 9 | 0.000053 |
| | 1-3 year | | | |
| | 3-5 year | | | |
| | >5 year | | | |
| Taking treatment? | Yes | N/A | N/A | N/A |
| | No | | | |
| Duration of treatment. | 1 year | 35.24 | 9 | 0.000053 |
| | 1-3 year | | | |
| | 3-5 year | | | |
| | >5 year | | | |

The association of anxiety in women with PCOD with demographic variables. in the reference association of anxiety among women with PCOD with demographic variables there was not significant association in religion, education, type of family, family income, age of menarche, do you know about PCOD?, taking treatment with the level of anxiety. The categories such as a found significant in age, marital status, have a child?, soure of information about PCOD?, duration of PCOD?, Duration of treatment. at p value >0.05% with level of anxiety

**Table 4:** level of depression and anxiety among women with PCOD

| Various level | Depression | Anxiety |
|---|---|---|
| Normal | 36% | 7% |
| Mild | 49% | 24% |
| Moderate | 8% | 52% |
| Sever | 7% | 17% |
| Total | 100% | 100% |

In this study total 100 women with PCOD participate, 36% of women with PCOD were identified no depression, and 49% of women with PCOD were identified mild depression, 8% of women with PCOD were identified moderate depression, 7% of women with PCOD were identified severe depression. In anxiety level 7% women with PCOD were identified no anxiety, 24% women with PCOD were identified mild anxiety, 52% women with PCOD were identified moderate anxiety, 17% women with PCOD were identified severe anxiety level.

A cross sectional descriptive study were carried out in selected hospital of Nadiad city Consent was taken from PCOD women. A study was conducted to assess the level of depression and anxiety among women with polycystic ovarian disorder. The sample were selected by the "non-probability consecutive sampling technique was adopted in this study. And their level of depression and anxiety assessed by a zung self-rating depression scale and zung self-rating anxiety scale. The study was conducted in samjulaxmi maternity hospital, and Akshar hospital Nadiad.

### Consent and Ethical Approval
The study was approved by the institutional ethical committee (IEC) of Dinsha Patel college of nursing Nadiad. There is total 15 member in the committee from various departments a formal written consent was gathered from the samples prior to data collections.

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### Competing Interests
Author have declared that no competing interests exits.

### References
"Are Women with PCOS More Depressed and Anxious?" (n.d.). Times of India. Link
"PCOS and Depression: What You Need to Know." Healthline. Link
Almeshari, W. K., Alsubaie, A. K., Alanazi, R. I., Almalki, Y. A., Masud, N., & Mahmoud, S. H. (2021). Depressive and Anxiety Symptom Assessment in Adults with Polycystic Ovarian Disorder. Depression Research and Treatment, 2021. Link
Banting, L. K., Gibson-Helm, M., Polman, R., Teede, H. J., & Stepto, N. K. (2014). Physical activity and mental health in women with polycystic ovary Disorder. BMC Women's Health, 14(1), 51. Link
Barry, J. A., Kuczmierczyk, A. R., & Hardiman, P. J. (2011). Anxiety and depression in polycystic ovary Disorder: a systematic review and meta-analysis. Human Reproduction, 26(9), 2442-2451. Link
Bharali, M. D., Rajendran, R., Goswami, J., Singal, K., & Rajendran, V. (2022). Prevalence of Polycystic Ovarian Syndrome in India: A Systematic Review and Meta-Analysis. Cureus, 14(12), e32351. Link
Chaudhari, A. P., Mazumdar, K., & Mehta, P. D. (2018). Anxiety, Depression, and Quality of Life in Women with Polycystic Ovarian Disorder. Indian Journal of Psychological Medicine, 40(3), 239-246. Link

Christian, A., & Nagar, K. (2021). Understanding Patients' Experiences Living with Diabetes Mellitus: A Qualitative Study, Gujarat, India. Journal of Pharmaceutical Research International, 33(58A), 464-471.

Deeks, A. A., Gibson-Helm, M. E., Paul, E., & Teede, H. J. (2011). Is having polycystic ovary Disorder a predictor of poor psychological function, including anxiety and depression? Human Reproduction, 26(6), 1399-1407. Link

Hasan, M., Sultana, S., Sohan, M., Parvin, S., Rahman, M. A., Hossain, M. J., Rahman, M. S., & Islam, M. R. (2022). Prevalence and associated risk factors for mental health problems among patients with polycystic ovary Disorder in Bangladesh: A nationwide cross-sectional study. PLoS One, 17(6), e0270102. Link

Legro, R. S. (2017). Evaluation and Treatment of Polycystic Ovary Disorder. In: Feingold KR, Anawalt B, Blackman MR, et al. (Eds.), Endotext. South Dartmouth (MA): MDText.com, Inc. Link

Madhuri, V., Koteswaramma, C. H., & Snehika, A. (2023). Prevalence of depression and anxiety among polycystic ovarian syndrome patients: a cross-sectional study. International Journal Of Community Medicine And Public Health, 10(7), 2566–2570.

Patel, J., & Nagar, K. (2022). Occupational Health Problems Among Tobacco Processing Factory Workers, at Kheda District, Gujarat: A Cross-Sectional Study. Journal of Pharmaceutical Negative Results, 17, 1378-1387. Link

Prajapati, S., & Nagar, K. (2022). Safety Education on Knowledge, Attitude, and Practice Towards Road Traffic Signs and Regulations Among College Students in Gujarat.

Prathap, A., Subbalakshmi, T. P., & Varghese, P. J. (2018). A Cross-sectional Study on the Proportion of Anxiety and Depression and Determinants of Quality of Life in Polycystic Ovarian Disease. Indian Journal of Psychological Medicine, 40(3), 257-262. Link

Radhakrishnan, R., & Verghese, A. (2018). A STUDY ON ANXIETY AND DEPRESSION AMONG PATIENTS WITH POLYCYSTIC OVARY DISORDER. Journal of Drug Delivery and Therapeutics, 8(5-s), 338-340. Link

Selina, C., & Nagar, K. (2021). Perception and Behavioral Outcome towards COVID-19 Vaccine among Students and Faculties of Nursing Colleges at Gujarat. Journal of Pharmaceutical Research International, 33(52B), 120-128. Link

Shao, R., He, P., Ling, B., Tan, L., Xu, L., Hou, Y., Kong, L., & Yang, Y. (2020). Prevalence of depression and anxiety and correlations between depression, anxiety, family functioning, social support, and coping styles among Chinese medical students. BMC Psychology, 8(1), 38. Link

Wang, X. Q., Lambert, C. E., & Lambert, V. A. (2007). Anxiety, depression, and coping strategies in post-hysterectomy Chinese women prior to discharge. International Nursing Review, 54(3), 271-279. Link

Wang, Y., Ni, Z., & Li, K. (2021). The prevalence of anxiety and depression of different severity in women with polycystic ovary Disorder: a meta-analysis. Gynecological Endocrinology, 37(12), 1072-1078. Link