



# Study on Quality of Life in Women with and Without Polycystic Ovarian Syndrome

<sup>1</sup>Pooja Kadam, <sup>2</sup>Dr.Suraj Kanase

<sup>1</sup>Final Year Student, Krishna College of physiotherapy, Krishna Vishwa Vidyapeeth, (Deemed to Be University), Karad, Maharashtra, India.

<sup>2</sup>HOD Department of Neurophysiotherapy, Krishna College of Physiotherapy, Krishna Vishwa Vidyapeeth Deemed to be University, Karad, Maharashtra, India.

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## KEYWORDS

Physical activity,  
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## ABSTRACT:

**Purpose of the Study:** Lifestyle is closely related to physical and mental health of people, and is effective in onset or development of many diseases .Polycystic ovarian syndrome is a hormonal disorder with potential lead to various diseases. The purpose of study is to compare baseline physical health, Overall quality of life, Psychological, Social relationships and environment in normal women and women with polycystic ovary syndrome in order to identify the difference .The association between quality of life and risk of the disease has not been studied well .

**Methods:** This was a comparative study conducted on 113 women with polycystic ovarian syndrome and 113 women without polycystic ovarian syndrome aged between 18-45 years. The total number of participants participated in study was 226 women. The WHO quality of life scale-Brief questionnaire was used for this study.

**Results:** According to the data, it has shown that there was a significant difference between the both the groups of women. The results are overall all quality of life with 78.31% in women without PCOS and 78.14% in women with PCOS, physical health with 57.66% in women without PCOS and 58.70% in women with PCOS, psychological 70.08% in women without PCOS 62.65% in women with PCOS. Social relationships 71.41% in women without PCOS and 53.71% in women with PCOS. In environmental 69.73% in women without PCOS and 64.63% in women with PCOS.

**Conclusion:** The study has shown that there is a difference between both the groups. Domains like physical health, psychological, social relationships and environment has effects on menstrual cycle abnormalities. Education about of these domains is needed as these domains could be the underlying cause of abnormalities.

## 1. Introduction

Polycystic ovarian syndrome (PCOS) is most prevalent endocrine disorder in women at reproductive ages<sup>[1]</sup>. PCOS is a heterogeneous condition characterized by features of androgen excess and ovarian dysfunction symptoms. The prevalence rate of PCOS is high among Indian women. The prevalence is 10% using Rotterdam's criteria and 5.8% using NIH criteria, which shows that the polycystic ovarian syndrome is wisely affecting the women in India<sup>[2]</sup>. The polycystic ovarian syndrome is characterized by the symptoms such as menstrual dysfunction, infertility, changes in physical appearance

and possibility of getting diseases like diabetes and cardiovascular diseases all of which will influence over all quality of life in women with polycystic ovarian syndrome<sup>[3]</sup>. Besides diabetes, cardiovascular diseases and obesity women with polycystic ovarian syndrome also face depression and anxiety problems as well as has a low self-esteem. Some women with polycystic ovarian syndrome experiences eating disorder such as emotional eating and external eating which has an effect on daily physical activities and BMI<sup>[4][5]</sup>. Environmental factors such as obesity can be aggravated by poor physical activity and eating habits. The problem of polycystic ovarian syndrome related to reproductive and obesity are



sometimes reversible with lifestyle modification such as weight loss and exercises<sup>[8]</sup>. The quality of life vary between women with and without polycystic ovarian syndrome. Quality of life domain such as mental health, environmental, physical and social functioning get affected when the women face polycystic ovarian syndrome related problems such as infertility, obesity and depression. Infertility and body weight has a negative impact on the self confidence in women with polycystic ovarian syndrome as compare to the women without polycystic ovarian syndrome<sup>[9]</sup>. High basal metabolic index also has a huge effect on the polycystic ovarian syndrome as the body weight is corresponding to the height of a person and the ideal weight is determine by the BMI. Educational history of a person plays an important role in the way of the treatment and the point of view of a person to look at the syndrome, which represent the mentality of a person on the polycystic ovarian syndrome<sup>[10]</sup><sup>[11]</sup>. Women with polycystic ovarian syndrome has face the depression and anxiety in some point of her life, so creating an awareness about the polycystic ovarian syndrome and discusses about it<sup>[12]</sup><sup>[13]</sup>. The study has done that discuss about the self-confidence of a women with and without polycystic ovarian syndrome

## 2. Materials and Methods

This comparative study was conducted on 226 women in which 113 was women with polycystic ovarian syndrome and 113 was women without polycystic ovarian syndrome. The WHO quality of life scale-Brief was used for the study<sup>6</sup>. The inclusion criteria were age between 18 to 45 years old women, women who have diagnosed with polycystic ovarian syndrome and healthy women. The women with polycystic ovarian syndrome was selected by using inclusion criteria, and women without polycystic ovarian syndrome was selected who was presented without signs and symptoms of polycystic ovarian syndrome.

The participants are selected according to the inclusion criteria i.e. women between the 18 to 45 years age, and women with polycystic ovarian syndrome. Women without polycystic ovarian syndrome are also included in the study. Women's excluded were below the age group of 18 and above the age group of 45. The sample size included both the women with and without polycystic ovarian syndrome.

The formula use to determine the sample size was as follows:

$$n = \frac{Z^2 pq}{L^2}$$

$$L^2$$

As per the formula, the sample size determine was 113 women in each group by using the reference article Comparison of lifestyle in women with polycystic ovary syndrome and healthy women. Z=standard normal variant at 4. p=Prevalence of polycystic ovarian syndrome was 7.1%. q=100-7.1=92.9. The total sample size for the study was determined as 226 women<sup>[1]</sup>.

The questionnaire used for the study consist of domains such as Overall quality of life, physical health, Psychological, Social relationships and environment. The questionnaire is of 26 questions and consist of 4 domains such as physical health(7 items), Psychological(6 items), Social relationships(3 items) and environment(8 items). The questionnaire was explained to the participants before the filling of questionnaire was carried out.

## 3. Results

This study was a comparative study, with the sample size of 226 women from which 113 women were having polycystic ovarian syndrome and 113 were not having polycystic ovarian syndrome. The below chart shows that the mean age was 24.43±5.315 of women without polycystic ovarian syndrome and mean age was 27.62±5.933 with polycystic ovarian syndrome.

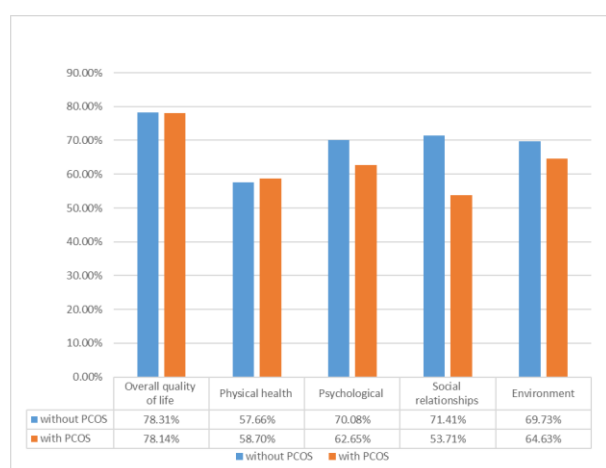
**Table no.1-Age (mean and standard deviation)**

Variable	With polycystic ovarian syndrome (mean and standard deviation)	Without polycystic ovarian syndrome (mean and standard deviation)
Age	27.62 ± 5.933	24.43 ± 5.315

Overall quality of life, Physical health, Psychological, Social relationships, Environment are the 5 domains from questionnaire from which the quality of life in women with and without polycystic ovarian syndrome were determined in these trial. The first domain which is "Overall quality of life" has two questions with maximum score of 5 each. The another 4 domain has the



same scoring as of first domain such as 1 has the lowest possible score and 5 has highest possible score. So the domain such as physical health has questions which determine the capacity of an individual and energy throughout the day. Psychological domain has a questions which focus on the mental health of a person with his or her appearance and confidence. Social relationships domain discuss about the relation with family and friends. Environment domain has questions about the daily needs satisfaction, access to health services and money. All the domain's percentage is then calculate according to the answer given by the women with and without polycystic ovarian syndrome.



**Graph no.1:** Distribution of Quality of life with WHOQIL-BREF amongst women with and without PCOS

The chart shows that there is significant difference in psychological, social relationships and Environment domain and no significant difference in overall quality of life and physical health. The "Overall quality of life" domain has 78.31% in women without polycystic ovarian syndrome and 78.14% in women with polycystic ovarian syndrome with P value ( $<0.0001$ ). The "Physical health" domain has 57.66% in women without polycystic ovarian syndrome and 58.70% in women with polycystic ovarian syndrome with P value ( $<0.0001$ ). Both the domain doesn't show significant difference in both the groups. The "psychological" domain has 70.08% in women without polycystic ovarian syndrome and 62.65% in women with polycystic ovarian syndrome with P value ( $<0.0001$ ). The "Social relationships" domain has 71.41% in women without polycystic ovarian syndrome and 53.71% in women with polycystic

ovarian syndrome with ( $<0.0001$ ) P value. The last domain "Environment" has 69.73% in women without polycystic ovarian syndrome and 64.63% in women with polycystic ovarian syndrome with ( $<0.0001$ ) P value. These three domain shows significant difference between both the groups. So these study shows that there is a significant difference between both the groups.

#### 4. Discussion

Irregular menstrual cycle is a one of the problems which is face by the women in all over the world. This is survey study aimed to compare the physical activity, emotional status in women with and without polycystic ovarian syndrome. Over 113 without polycystic ovarian syndrome and 113 with polycystic ovarian syndrome women were taken for the study purpose. These study focus on 5 domain that are overall quality of life, physical health, psychological, social relationship, environment. The study determined that there is a difference between the both the groups. Study by Sedigheh Sedighi<sup>1</sup>, Sedigheh Amir Ali Akbari, Maryam Afrakhteh, Taraneh Esteki, Hamid Alavi Majd & Zohreh Mahmoodi. (31 August 2014) Comparison of Lifestyle in Women With Polycystic Ovary Syndrome and Healthy Women. The study was conducted in Iran on 65 women with PCOS and 65 healthy women participated. There was no significant difference between the two groups. There was no difference between the two groups in terms of subjects' education, their husbands' education, subjects' occupation, their husbands' occupation, monthly income and marital status<sup>[1]</sup>. So in these study the focus was on the domain that can be the factor that has an effects on the daily life style of a women. After studying the result of the study which shows that there is no difference in the overall quality in the both the group's women life, as we mostly find that there is a difference in quality of life of both the groups with and without PCOS but in these study the findings were different. Another domain which talk about the physical health of the both the groups is that the group of women without PCOS daily workout and exercises in not in their daily routine as compare to the group of women with PCOS. Domains like psychological health, social relationships and environment has shown the differences in the both the groups so further study should be more focus on the domains which represents the psychological health, social relationships and environment of a person. The limitations face during the study was that the women in



the rural area was not that familiar with the PCOS and the early symptoms about the polycystic ovarian syndrome. So further someone may study on creating awareness among the women living in the rural areas with poor sanity about the basic things on menstrual cycle and polycystic ovarian syndrome.

## 5. Conclusion

Domains such as quality of life, physical health, psychological, social relationships and environment has an effects on the menstrual cycle abnormalities. The study has shown that there is a difference between both the groups. Education about of these domains is needed as these domains could be the underlying cause of abnormalities, by which future complications can be prevented as well as quality of life of an individual will be improve. The study denotes the need of adapting to a proper lifestyle pattern which can lead to improve both the menstrual cycle and overall quality of life in women. Highlight of the study is the wide effect of the daily lifestyle habits on the menstrual cycle and quality of life in women with 18 to 45 age group.

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