

Prevalence of Polycystic Ovarian Syndrome in Younger Women: A Community-Based Study

Dr. Devarsh Prajapati¹, Dr. Hiral Jayeshbabu Yagnik², Dr. Rajesh Vasava³,
Dr. Anjum Akhtar Siddiqui⁴

¹Bachelor's Of Physiotherapy, ²1st Year MPT Student (pediatric), JG College of Physiotherapy.
³Assistant Professor, ⁴ Principal, Khyati Institute of Physiotherapy, Shahibaug, Ahmedabad-380003

Corresponding Author: Dr. Hiral Jayeshbabu Yagnik

DOI: <https://doi.org/10.52403/gijash.20240209>

ABSTRACT

Based on the data analysis it is concluded that efforts need to identify in creating awareness among the general public about PCOS. This study's overall findings emphasize the need for more acceptable and uniform diagnostic criteria for screening awareness as well as to spread more awareness about the basic information about PCOS like basic causes, symptoms, various diagnostic criteria, various available therapeutic interventions, and the importance of the therapeutic intervention. It is also important for healthcare professionals to communicate the basic information of PCOS with the general population. The guidelines for the awareness and management of PCOS are also needed by various policymakers, movement organizations, and healthcare professionals.

Keywords: Awareness, PCOS, younger women

INTRODUCTION

Polycystic ovarian syndrome (PCOS) is the most common endocrine disorder in women of reproductive age [1] These patients are at higher risk of developing infertility, dysfunctional uterine bleeding, and several metabolic disorders including insulin

resistance, diabetes mellitus, hypertension, and dyslipidemia. [2]

The exact prevalence of PCOS is not defined precisely. The prevalence in women of reproductive age is 5-10% and it will rise by 10% in the general female population. Nidhi et al. prospectively Studied 460 girls aged 15-18 years from a residential college in Andhra Pradesh, south India, and concluded that the prevalence of PCOS is in the Indian 9.13% adolescents. NA Desai et al studied 881 school-going girls in the year age 15-18 group and concluded that had PCOS, this research states that the overall prevalence of PCOS globally is 13%. [4,5] PCOS does not have any universally accepted definition. Patients with PCOS present with complex clinical presentation. It is considered a triad of oligomenorrhea, hirsutism, and obesity. Nowadays it is considered as a heterogeneous disorder that results in the overproduction of androgens along with insulin resistance, androgen overproduction primarily takes place in the ovary. PCOS may present with some metabolic abnormalities like insulin resistance and dyslipidemia. It may also be associated with amenorrhea, infertility, and feature of hyperandrogenemia. Persistent anovulation over a prolonged period is considered an underlying cause of PCOS. [3] PCOS women are at more risk of obesity, type ii diabetes mellitus, and dyslipidemia and many have an increased risk of

cardiovascular disease because of increased risk of hypertension, inflammation, some endothelial dysfunction as well risk of subclinical atherosclerosis. it increases the risk of miscarriages, fatal deformities premature deliveries, and neonatal complications. PCOS also promotes mental health issues like depression, poor body image, and reduced health-related quality of life. thus PCOS is associated with short-term and long-term presentation that may adversely affect women at the carrying stages of life.^[3,4]

Multiple factors like genetic and environmental factors play an important role in the occurrence of PCOS. The consequences of this multifaceted disease extend beyond the reproductive system affecting metabolic, cardiovascular, immune as well psychological health of women with PCOS. Some genome-advanced studies identifying several critical genes involved in steroidogenesis, gonadotrophin action, insulin action and secretion, lipid mechanism, and chronic inflammation are considered the most promising genes involved in PCOS.^[6,7]

From the physiotherapy point of view, for treatment and diagnostic purposes awareness of the signs and symptoms of PCOS is the most important thing. Rather than physiotherapy, other purposes like medical management and other conservative management also require awareness and knowledge of the PCOS's basic symptoms and clinical features.^[8]

MATERIALS & METHODS

Based on selection criteria, 101 subjects were selected and they participated by filling out a Google questionnaire for the same. Google questionnaire contains various questions related to age, awareness about PCOS, symptoms, diagnosis, causes, associated conditions, treatments, consequences, and role of physiotherapy in PCOS. And they filled up a questionnaire. Data analysis was done with the use of Google Excel.

Inclusion Criteria

- Those who volunteered to be part of the study.
- Those above the age group of 18 years.

Exclusion Criteria

- Pregnant females

RESULT

101 participants in the age group of eighteen to twenty-five participated in this study. Completed responses to the questionnaire were analyzed. A total of 12.9% of study participants were between the age group of 18 to 20, 52.5% of study participants were from between the age group of 21 to 25, 22.8% of study participants were from between the age group of 21 to 23 and the remaining 11.9% were from more than 25 age group. This analysis of the age group distribution suggested that most of the participants were from the age group of 21 to 25. In level of awareness, 81.2 % of the respondents indicated they had been informed well about PCOS and 18.8 % did not have any idea about the PCOS.

The most common symptom of PCOS is mood swing and it is 45%, the highest percentage of all symptoms, 24% participated experienced irregular menstruation, 10 experienced unexplained symptoms, 2% complained about nausea, others were experienced 5% with excessive hair loss, 19.8 % participate experienced about skin breakdown 5.9% lethargy, 7.9% heavy bleeding and 13.9 % pain in the pelvic area. There 25.7 % did not experience any symptoms of PCOS.

From 101 participants only 8.9 % were diagnosed with PC 63.4 % were not diagnosed with PCOS and 27.9% were still not going with any diagnostic test. 55.4 % of participants are aware of the cause of PCOS and the rest 44.6 % are not aware of the causative factors of PCOS.

Data analysis suggested that 87.1% of participants were not present with any secondary associated medical condition, and

only a few experienced some associated secondary medical condition.

For treatment taken by the patients for PCOS, 32.7% of the participants were believed in self-care, 18.8% taking yoga, and 9.9% participants taking physiotherapy treatment. 47.5% of participants are not taking any treatment for PCOS. Based on this data analysis it is concluded that most of the participants are not taking any physiotherapy treatment for the PCOS

DISCUSSION

This study is aimed to find out the prevalence of PCOS in younger females. On the perception of PCOS, this study demonstrated that 81.2% of the participants were aware of PCOS.

A total of 101 subjects were taken based on selection criteria and they were asked to participate willingly in this survey. They filled out a Google questionnaire that contained age, awareness about PCOS, symptoms, diagnosis, causes, associated conditions, treatments, consequences, and the role of physiotherapy in PCOS. After that, the data was analyzed with a Google Excel sheet. Among 101 participants 81.2% were aware of polycystic ovarian syndrome. 8.9% of the participants have already been diagnosed with PCOS. The most common symptoms were mood swings (45%), irregular menstruation (24%), and skin breakouts (20%). 44.6% were knowing the cause of PCOS. The most common associated condition was found to be hormonal imbalance (8%). The most common treatment was self-care (33%) Yoga (19%), physiotherapy (10%), diet (13%) and medication (9%). 64.6% of the population was aware of the consequences of PCOS. 52.5% of the participants are aware of the role of physiotherapy. A study by E Scott et al reports that out of 657 participants, more than 50% of the participants were aware of PCOS, and according to that physician was the main source of information and

played an important role in awareness of PCOS. In this study the data analysis suggested that most of the participants were aware of the symptoms of PCOS more than 40% of the participants were aware of the mood swing-like symptoms, so on that basis, it is concluded that awareness of the symptoms of the PCOS is also having an important role in awareness of the PCOS. Most of the participants were aware of therapeutic interventions like self-care, yoga, meditation, and physiotherapy.

Analysis suggests that 50 % of the participants were aware of the intervention related to PCOS. However, 52.5% of the participants were aware of the role of physiotherapy intervention in PCOS. A large number of the populations in this study were not aware of the role of physiotherapy in PCOS. This may be because subjects were not aware that physiotherapists involved in exercise prescription neither had been advised to consult however high level of evidence affirms structured exercise training improves an array of health-related outcomes not only physical but also psychological well-being which includes protection against the development of cardiovascular disease and insulin sensitivity. Arun Mariya et al reported that the graded aerobic exercise helps in reducing the cyst size, increasing the ovulation, and pregnancy rate as compared to the control group. A study by Nidhi R et al observed holistic yoga program in PCOS helps in reducing the anxiety related problems

Physiotherapists need to join hands with physicians, and medical practitioners in patient education, motivating them to adhere to regular physical activity apart from need-based exercise programs and adding evidence to the literature. Even academicians need to include evidence-based programs for PCOS management. Furthermore, this study can be explored by identifying barriers to lifestyle modification also effects on PCOS

CONCLUSION

Based on the data analysis it is concluded that efforts need to identify in creating awareness among the general public about PCOS. This studies overall findings emphasize the need for more acceptable and uniform diagnostic criteria for screening awareness as well as to spread more awareness about the basic information about PCOS like basic causes, symptoms, various diagnostic criteria, various available therapeutic interventions, and the importance of the therapeutic intervention. It is also important for healthcare professionals to communicate basic information about PCOS to the general population. The guidelines for the awareness and management of PCOS are also needed by various policymakers, movement organizations, and healthcare professionals.

Declaration by Authors

Acknowledgment: To our beloved PARENTS and their contribution to our studies.

Source of Funding: None

Conflict of Interest: The authors declare no conflict of interest.

REFERENCES

1. Sunita Ramanadan et al, PCOS syndrome in Indian women, Indian Journal of Endocrinology and Metabolism, Jan – Feb 2013, volume 17
2. E diamante et al, PCOS pathophysiology, molecular aspects, and clinical aspects, experts review in molecular sci, 2008 volume 10
3. Selma Feldman et al, PCOS; pathophysiology, presentation and treatment with emphasis on adolescent girls, National Library of Medicine, 2019
4. Behnaz Khanii et al, the prevalence of PCOS in Iranian women based on different diagnostic criteria, Polish Journal of Endocrinology, 2011 volume 62
5. Radhika Rajendran et al, the prevalence of PCOS in India, Indian Journal of Endocrinology and Metabolism, Dec 2022.

How to cite this article: Devarsh Prajapati, Hiral Jayeshbabu Yagnik, Rajesh Vasava, Anjum Akhtar Siddiqui. Prevalence of polycystic ovarian syndrome in younger women: a community-based study. *Galore International Journal of Applied Sciences & Humanities*. 2024; 8(2): 69-72. DOI: <https://doi.org/10.52403/gijash.20240209>
