

LIFESTYLE MODIFICATIONS IN POLYCYSTIC OVARIAN DISEASE AMONG THE ADULT FEMALES

Varsha Upadhyay¹, Anita Meena²

¹Assistant Professor, Mahatma Gandhi Nursing College, Jaipur
Mahatma Gandhi University of Medical Sciences & Technology, Jaipur

²Assistant Lecturer, Jeevandeep school of Nursing, Varanasi

Corresponding Author:

Varsha Upadhyay

Assistant Professor, Mahatma Gandhi Nursing College, Jaipur

Email: varshau1991@gmail.com

Received 2022 September 13 Accepted 2022 September 22, Published - 2022 September 30

ABSTRACT

Polycystic ovary syndrome (PCOS) is the most common cause of anovulatory infertility and endocrine disorders in women of reproductive age. Polycystic ovary syndrome (PCOS) adversely affects women at different stages of their lives and it is necessary to emphasize preventive strategies because the incidence of PCOS is very high.^[1] The study aims to explore perceptions of PCOS, awareness of lifestyle change, emotional characteristics, and concerns about PCOS and utilization of physiotherapy services.^[2] Polycystic ovary syndrome (PCOS) is one of the most common endocrine disorders in women of reproductive age. Recently, the disease has been on the rise due to environmental changes and lifestyle disorders, affecting 4-26% of adolescent and young women worldwide. Initially, the condition is asymptomatic in young girls, progresses to menstrual irregularities, obesity, and hyperandrogenism in late puberty, and eventually develops insulin resistance, hypertension, type 2 diabetes, cardiovascular disease, and infertility around middle age. Objective: Early diagnosis is essential for early intervention, including lifestyle modification, to prevent the immediate and chronic consequences of PCOS.^[3]

Keywords Lifestyle modifications, polycystic ovarian disease, anovulation, oligomenorrhoea and adult females.

Introduction

Polycystic ovary syndrome (PCOS) is a common endocrine disorder seen in women. Polycystic means that the ovaries have many cysts or follicles that rarely grow to maturity or produce eggs capable of fertilization. PCOS is quite common, especially in infertile women. PCOS occurs when an endocrine imbalance leads to high levels of estrogen, testosterone, and luteinizing hormone (LH) and decreases follicle-stimulating hormone (FSH) secretion. This syndrome is associated with several problems in the hypothalamic-pituitary-ovarian axis and with androgen-producing tumors. PCOS is a common condition present in 12-21% of women of reproductive age. Up to 70% of women with PCOS remain undiagnosed.

Multimodal lifestyle change interventions emphasize sustainable weight loss through diet, exercise, and behavioral changes. Early recognition, understanding and management of the clinical characteristics of this syndrome should prevent long-term health problems. According to the Rotterdam criteria, if one ovary of a woman reveals multiple cysts and is associated with ovulatory dysfunction and excessive androgen secretion with or without complaints of oligomenorrhoea, she has polycystic ovaries. Polycystic ovary syndrome (PCOS) is an endocrine disorder characterized by changes in hormone levels. Common symptoms are menstrual irregularities, anovulation, obesity, acne and hair growth in unwanted areas, alopecia and male pattern baldness. Infertility, type 2 diabetes, gestational diabetes, hypertension, and gynecological cancers are long-term complications of PCOS.^[4]

The exact causes of PCOS are not fully understood. However, PCOS can be hereditary and associated with abnormalities such as high body mass index (BMI) and obesity, among others. This study is conducted to assess the prevalence and awareness among adolescent and adolescent girls of South India. PCOS is recognized as an important reproductive and metabolic disorder because it affects the ovaries and 40% of affected women suffer

from insulin resistance. Resistance and are subsequently predisposed to the development of type 2 DM.

PCOS AND LIFESTYLE MODIFICATION INTERVENTION:

Your diet, level of physical activity and exercise, sleeping habits and stress levels can also determine severity and risk of PCOS. Maintaining a balance in each of these can help in reducing symptoms and even reversing PCOS.

1. Diet – It's not about following a fad diet, says Dr. Wadhwa. A balanced diet with all food groups is needed. "You have to eat healthy and in moderation. Avoid everything that comes in a package. Processed foods are a big no. Even if you crave something spicy or salty, make it at home with natural ingredients, nothing too exotic or fancy." Eating a healthy diet can help reduce symptoms and even reverse PCOS.

2. Avoid using plastic in all forms - From water bottles to containers and all cutleries; get rid of all plastic items from your kitchen. Studies have found that women with PCOS are more vulnerable to exposure to bisphenol A (BPA), which is found in many homes.^[6]

3. Exercise regularly – The key here is regular exercise, says Dr. Wadhwa. You don't have to overdo it. Even half an hour of exercise every day can help you lose weight and be physically and mentally fit. Make sure you exercise regularly and incorporate all forms of exercise into your routine, such as cardio, strength training and even yoga. Yoga has a calming effect on the mind and is therefore recommended for effective PCOS treatment.

4. Quit Alcohol and Smoking – Alcohol is nothing but empty calories. "If you want to drink alcohol and enjoy yourself, exercise only in moderation," he says. Avoid mixing drinks and drinking regularly. Drink a glass of water after each drink and drink slowly. Quit smoking because it harms your body in more ways than you can imagine.^[7]

5. Allopathic PCOS Treatment – Allopathy uses a number of drugs and weight loss programs to manage the symptoms of PCOS. To promote regular menstruation, women may be asked to take monthly oral contraceptive pills. To treat infertility or to get a woman pregnant, she may be prescribed an ovulation induction drug. Some women are also prescribed periodontal medications that are taken around the menstrual cycle. These medications can be taken every 3-4 months. In addition to these patients, diets can also be put in place to help reduce weight. The doctor may also prescribe some high-energy exercises to achieve this. In fact, fertility increases when a woman loses even 3 percent of her body weight. The treatment of Allopathy depends on the hormonal imbalance and the main treatment induces HRT (Hormone Replacement Therapy), where subsequent hormones are administered after examining the patient.^[8]

Prevalence of PCOS in India

The worldwide prevalence of PCOS is estimated between 4% and 20%. Data from the World Health Organization (WHO) indicate that PCOS affects approximately 116 million women (3.4%) worldwide. Data on the prevalence of PCOS in India are scarce. According to the National Health Portal of India, the PCOS prevalence rate in Maharashtra was recorded as 22.5%. Another previous report from South India that included adolescents showed an incidence of 9.13%. However, the diagnostic criteria for PCOS were different in these studies. Treatment for PCOS includes weight reduction and hormone regulation. Lifestyle modification is the best treatment for reducing PCOS symptoms. The exact prevalence of PCOS is unknown because the syndrome is not well defined. It is estimated that one in five (20 percent) Indian women suffer from PCOS. The estimated prevalence in women of reproductive age is 5-10 percent.^[9]

Major complications of PCOS include anovulation, infertility, cardiovascular disease, insulin resistance and type 2 diabetes mellitus, metabolic syndrome, endometrial cancer, etc. Treatment of PCOS includes weight reduction and hormone regulation. Lifestyle modification is the best treatment for reducing PCOS symptoms.^[10] Ovulation can be achieved by reducing body weight by ten percent. A well-balanced diet also plays an important role in weight reduction. Another type of treatment includes oral contraceptives and metformin therapy. Prevention may not be possible due to genetic predisposition, but early diagnosis and treatment are helpful in preventing complications.^[11]

Conclusion

Polycystic ovary syndrome is a condition that can affect a woman's menstrual cycle fertility hormone and appearance. A review of the above studies concluded that regular exercise and lifestyle modification help reduce

the risk of PCOS. Thus, early diagnosis and better diet and lifestyle can improve the quality of life and early recovery of the patient from this disease. Various herbal extracts show a positive correlation in reducing indicators associated with PCOS. This review discusses the influence of diet and lifestyle on PCOS as prominent features. It has been suggested that a balanced diet with optimal physical activity can reduce severe symptoms of PCOS and improve quality of life. Recommendations for diet and lifestyle changes that can positively impact recovery from PCOS are also provided.

References

1. Chan-Hee Kim¹ and Seon-Heui Lee², Journal List Life (Basel) , Effectiveness of Lifestyle Modification in Polycystic Ovary Syndrome Patients with Obesity: A Systematic Review and Meta-Analysis, Life (Basel). 2022 Feb; 12(2): 308. Published online 2022 Feb 18. Doi: 10.3390/life12020308 ,PMCID: PMC8876590, PMID: 35207595.
2. Pothiraj Pitchai, Sreeraj S R, Parmar Anil , Awareness of lifestyle modification in females diagnosed with polycystic ovarian syndrome in India: explorative study , January 2016, DOI:10.18203/2320-1770.ijrcog20160393.
3. Madhumati Chatterjee¹, Soma Aditya Bandyopadhyay², Assessment of the prevalence of polycystic ovary syndrome among the college students: A case-control study from Kolkata, J Edu Health Promot , Year : 2020 | Volume : 25 | Issue : 1 | Page : 28-32.
4. Pramila D'Souza , Devina E Rodrigues , Raja Gopal Kaipangala , Kunnath Chacko Leena, Effectiveness of Multimodal Interventions of Lifestyle Modification on Symptoms of Polycystic Ovarian Syndrome and Quality of Life among Women , DOI: 10.7860/JCDR/2022/50394.16030.
5. Jabeen A, Yamini V, Rahman Amberina A, et al. Polycystic Ovarian Syndrome: Prevalence, Predisposing Factors, and Awareness Among Adolescent and Young Girls of South India. Cureus 14(8): e27943. doi:10.7759/cureus.27943, Published: August 12, 2022, DOI: 10.7759/cureus.27943 .
6. Kathleen M Hoeger , Role of lifestyle modification in the management of polycystic ovary syndrome,. 2006 Jun; 20(2):293-310, Doi: 10.1016/j.beem.2006.03.008. PMID: 16772159.
7. Juan Pablo Domecq, Gabriela Prutsky, Rebecca J. Mullan, Ahmad Hazem, Vishnu Sundares, Mohammed B. Elamin, Olivia J. Phung, Amy Wang, Kathleen Hoeger, Renato Pasquali: Lifestyle Modification Programs in Polycystic Ovary Syndrome: Systematic Review and Meta-Analysis, The Journal of Clinical Endocrinology & Metabolism, Volume 98, Issue 12, 1 December 2013, Pages 4655–4663, <https://doi.org/10.1210/jc.2013-2385>.
8. Kowsalya S , Poornima Andal R, Factorial Study on Effectiveness of Allopathic Ayurvedic and lifestyle modification on Polycystic Ovarian Syndrome among selected women in Coimbatore: Shodhganga : a reservoir of Indian theses @ INFLIBNET , URI: <http://hdl.handle.net/10603/331649>, Completed Date: 2021.
9. Valarmathi S, Impact of Awareness Program and Lifestyle Modifications on Risk for Polycystic Ovarian Syndrome among Adolescent Girls: Shodhganga : a reservoir of Indian theses @ INFLIBNET: <http://hdl.handle.net/10603/355098> , Year 2018.
10. Asha K Varughese, Veena Greetta Tauro, International Journal of Nursing Education and Research: DOI: 10.5958/2454-2660.2019.00134.0: Published In: Volume - 7, Issue - 4, Year – 2019.
11. Savita V, Lavanya N, Jony S, A Study to Evaluate the effectiveness of Structured Teaching Programme on knowledge regarding of Polycystic Ovarian Syndrome among School teachers of selected school of Ghaziabad: International Journal of Nursing Education and Research: DOI: 10.5958/2454-2660.2020.00043.5: Published In: Volume - 8, Issue – 2, Year- 2020: ISSN: 2454-2660 (Online), 2347-8640 (Print).