Research Paper

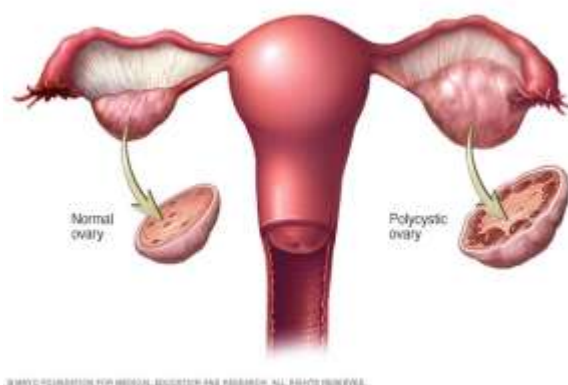# Study of Polycystic ovary syndrome (PCOS) on Eating Disorder of Women

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Polycystic ovary syndrome (PCOS) is a disease affecting women at reproductive age. Polycystic ovary syndrome (PCOS), a hormones imbalance that causes infertility, obesity, and excessive facial hair on women, can also lead to severe mental health issues including anxiety, depression and eating disorders. Women with PCOS may have infrequent or prolonged menstrual periods or excess male hormone (androgen) levels. The ovaries may develop numerous small collection of fluid (follicles) and fail to regularly release eggs. (PCOS) affects up to almost 27 percent of women during childbearing years. Italian physician Antonio Wallis Neri first described its symptoms in 1721.

Signs and symptoms of PCOS vary. A diagnosis of PCOS is made when women exertions at least two of these signs:
1. **Irregular Periods**- Infrequent, irregular or prolonged menstrual cycles are the most common sign of PCOS.

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2. **Excess androgen-** Elevated levels of male hormone may result on physical signs such as excess facial body hair (hirsutism), and occasionally severe acne and male-pattern baldness.

3. **Polycystic ovaries-** Your ovaries might be enlarged and contain follicles that surround the eggs. As a result, the ovaries might fail to function regularly.

REVIEW OF LITERATURE

Jeng-Hsiu Hung (2014), investigated that relationship between PCOS and the subsequent development of psychiatric disorders including schizophrenia, bipolar disorder, depressive disorder, anxiety disorder and sleep disorder. Researcher identified patients who were diagnosed with PCOS by an obstetrician-gynecologist in the Taiwan National Health Insurance Research Database. A comparison cohort was constructed of patients with ought PCOS who were according to age and sex. The occurrences of subsequent new-onset psychiatric disorder was evaluated in both cohorts based on diagnoses made by psychiatrists. The PCOS cohort consisted of 5431 patients, and the comparison cohort consisted of 21,724 matched control patients without PCOS. The incidence of depressive disorder (hazard ratio [HR] 1.296, 95% confidence interval [CI] 1.084-550), anxiety disorder (HR 1.392, 95% CI 1.121-1.729), and sleep disorder (HR 1.495, 95% CI 10176-1.899) were higher among the PCOS patients than among the patients in the comparison cohort. In addition, a higher incidence of newly diagnosed depressive disorder, anxiety disorder and sleep disorder remained significantly increased in all of the stratified follow-up durations (0-1,1-5, >5y). Research concluded that PCOS might the risk of subsequent newly diagnosed depressive disorder, anxiety disorder, and sleep disorder.

Bazarganipour F (2013), the aim of the present study was to estimate the prevalence of mood disorders and examine a range of predictors for psychological well-being among Iranian women with polycystic ovary syndrome (PCOS). A cross-sectional study was undertaken to ascertain the factors related to psychological distress in PCOS patients in Kashan, Iran. Psychological distress was measured using the Hospital Anxiety and Depression Scale (HADS). In addition we assessed quality of life using the short from Health survey (SF-36). Socio-demographic details and clinical information of PCOS including obesity (body mass index), excessive body hair (hirsutism score), acne, menstrual cycle disturbances, infertility and endocrine profile also were recorded for each patient.

Terms used in research
Eating Disorder- There is a commonly held view that eating disorders are a lifestyle choice. Eating Disorders are actually serious and often fatal illness that cause severe disturbance to a person's eating behaviors. Obsession with food, body weight, and shape may also signal an eating disorder. Common eating disorders include anorexia nervosa, bulimia nervosa, and binge-eating disorder.

Objective of the Research
1. To study and compare the Eating disorder of women withPolycystic Ovary Syndrome and women without Polycystic Ovary Syndrome.

Hypotheses of the Research
1. The Eating disorder would be high in women with polycystic ovary syndrome than women without polycystic ovary syndrome.
2. The eating disorder would be high in women in urban area with polycystic ovary syndrome.

Variables under study
- **Independent Variables (IVs)**

1. Polycystic ovary syndrome
   a) Women with polycystic ovary syndrome
   b) Women with polycystic ovary syndrome

2. Area
   a) Rural
   b) Urban

- **Dependent Variables (DVs)**
   a) Eating Disorder

METHODOLOGY

Sample

The present study aims to examine a sample consisting 80 individual subjects women with polycystic ovary syndrome and women without polycystic ovary syndrome ranging age between 25 to 32 years of Mumbai city of Maharashtra. There are two groups (40 women with polycystic ovary syndrome and 40women without polycystic ovary syndrome).

Tools

Eating Disorder Inventory: - The EDI-3 is developed by David M Garner. The EDI-3 referral from kit is specially design for allied health professional to help identify individuals who are at risk for eating disorder. In addition to 25EDI-3 questions, this brief self-report from includes behavioral symptoms questions identify individual's potential eating disorders or pathology

Statistical Methods

Descriptive statistical methods used for (mean, S.D., and t test) out for analysis of the data.

RESULTS AND DISCUSSION

Table- I showing the mean score and 't' value of the analysis of the women with and without polycystic ovary syndrome).

Status	Mean	N	S.D.	't'	Sign
With PCOS	23.2	40	1.85	10.9	S
Without PCOS	20.1	40	1.78		

The first mean of women with polycystic ovary syndrome23.2 and SD was 1.85 and second mean of women without polycystic ovary syndrome20.1 and SD was 1.78 and't' value is10.9.Both level (.01 and .05) are significant. Our hypothesis was accepted. (The Eating disorder would be high in women with polycystic ovary syndrome than women without polycystic ovary syndrome.

Bernadett M1, Szemán-N A (2016), the aim of this study was to determine the prevalence of eating disorders among women with PCOS. Body mass index (BMI), Eating Attitudes Test (EAT) and Eating Behaviour Severity Scale (EBSS) were used to measure eating attitudes and behaviors. Furthermore PCOS symptomes were measured by Ferriman-Gallwey Score, Global Acne Grading Score, Savin Scale and other pcos symptoms were also accessed. A total of 318 women were included in this analysis. The sample consists of a PCOS group (N=95), a control group (N=100) and a hyper androgen group (N=123). The Prevalence of clinical bulimia nervosa was 5.3%, subclinical anorexia nervosa 1.1% and subclinical bulimia nervosa was 10.5% among PCOS women. 1.6% subclinical bulimia nervosa was detected in the hyper androgen group. The results of the study indicate that the prevalence of clinical and subclinical bulimia nervosa is increased among women with PCOS compared to healthy women. Eating disorders can have significant negative influence on the outcome of the treatment of PCOS. To sum up, these findings suggest that it should be necessary to pay attention to the screening of eating disorders, and the findings also reveals that psychological treatment of eating disorders among women with PCOS is relevant.

Table- II showing the mean score and 't' value of the analysis of the women with and without polycystic ovary syndrome in rural and urban).

Status of women	Mean	N	S.D.	't'	Sign
With PCOS in urban	20.1	40	1.55	15.9	S
Without PCOS in rural	18.2	40	1.30		

The first mean of women with polycystic ovary syndrome in urban area20.1 and SD was 1.55 and second mean of women without polycystic ovary syndrome in rural18.2 and SD was 1.30 and't' value is15.9.Both level (.01 and .05) are significant. Our hypothesis was accepted. (The eating disorder would be high in women in urban area with polycystic ovary syndrome.)
Sweta Balaji (2015), the aim of this study was to determine urban and rural differences in the burden of polycystic ovarian syndrome among Indian adolescent females aged 12 to 19 years. Methods. A pilot cross-sectional study was conducted for a period of one month (August-September 2013) at Balaji Hospital, Vellore, Tamil Nadu, and India. The final sample included 126 study participants located in various urban (50 %,) and rural (50 %,) settings. Information was gathered on socio demographic and anthropometric characteristics, clinical history, occurrence of acne and hirsutism, serum testosterone levels, obstetric history, family history of chronic diseases, menstrual history, physical activity, and dietary

intake. Results. Eighteen percent of the participants were confirmed of having PCOS by recent guidelines of Rotterdam Consensus for adolescent diagnosis of PCOS (presence of all three elements). Majority of the individuals with PCOS had an average age of 16 (SD = 2) () years with an average age of menarche 12 years (SD = 1). Conclusion. The proportion of participants diagnosed with PCOS was higher among urban participants in comparison to rural participants.

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