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**Original Research Article**

# Prevalence of PCOS in Reproductive Age Women in Gujrat City

Syeda Hijab Fatima[1*], Muhammad Ahmad Naeem [2,3], Abid Ali[4], Rehan Afsar[2,3]

[1]Medical Imaging Doctor (MID), University Institute of Radiological and Medical Imaging Sciences, the University of Lahore, Gujrat, Campus
[2]Lecturer, University Institute of Radiological and Medical Imaging Sciences, the University of Lahore, Gujrat, Campus
[3]Lecturer, the University of Chenab
[4]Associate Professor, Department of Allied Health Sciences, the University of Chenab, Gujrat

**Abstract:** *Background:* Female reproduction system contains uterus, fallopian tubes and ovaries. PCOS occur when male sex hormones are produced in excess amount in female. The ovaries can foster an enormous liquid assortment (follicles) and on ordinary premise don't deliver eggs. *Objective:* To estimate the polycystic ovary syndrome (PCOS) prevalent in reproductive womens in Gujrat City Population. *Material and Methods:* Cross sectional study was conducted between March 2022 to May 2022 for patients at Khalil Hospital Gujrat, Pakistan. Sample size of 140 female Patients was obtained using a convenient sampling technique. All Female patients on daily routine were included. Toshiba Ultrasound Machine was used in this study. SPSS version 22 was used for data entry and analysis. *Results:* 140 Patients presented in the age ranges of (18-25), (26-35), (36-45), (46-55) respectively. There were all female included in this study. Classification of Signs & symptoms of Pain was present in 54(41.4%), Obesity in 36(25.7%) patients, Irregular Periods in 13(9.3%), Irregular Period-Pain-Facial Hairs in 16(11.4%), Infertility-Irregular Periods in 13(9.3), Irregular Periods-Obesity 4(2.9%). PCOS was seen in 48(34.3%) patients. *Conclusion:* PCOS is common in reproductive age women, most patients come with complain of pain 54(44.1%) and Obesity 36(25.7%) with Disturbed Menstrual cycle 13(9.3%) some were present with complain of Infertility 13(9.3%). PCOs were seen in 48(34.3%) patients. Ultrasound is effective in the diagnosing PCOS in early age.
**Key words:** PCOS, TAS, TVS, Irregular Period, Obesity, Infertility.

# INTRODUCTION

The pelvis houses the uterus, fallopian tubes, and ovaries in females. Polycystic ovary disorder (PCOS), initially known a gynecological illness because of its clinical and subclinical vascular sickness, endometrial disease, and different circumstances [1].

Most normal endocrine disorders in reproductive women is PCOS, which is portrayed by menstrual irregularities, excessive presence of the male sex hormones, and polycystic ovaries. Obese women may be more susceptible to PCOS, with a prevalence of around 28.3 percent. Infertility caused by PCOS is also a common and treatable cause [2]. PCOS also causes facial and body hair growth, as well as baldness. One out of each and every ten ladies of childbearing age experiences polycystic ovary disorder (PCOS). PCOS causes hormonal irregular characteristics and digestion issues in ladies, which can affect their general wellbeing and appearance. PCOS related barrenness is likewise a typical and treatable reason. PCOS additionally causes hair development on the face and body, as well as sparseness. It can likewise prompt long haul medical conditions like diabetes and coronary illness [3, 4].

PCOS is primarily diagnosed on the basis of reproductive requirements, but there is additionally metabolic turmoil. Insulin opposition, debilitated glucose resilience, type 2 diabetes, weight gain, and dyslipidemia are more normal in PCOS ladies than in non-PCOS ladies of a similar age [5, 6].

It remain mostly undiagnosed this is mostly due to patient presentation and a lack of provider

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**\*Corresponding Author:** Syeda Hijab Fatima
Medical Imaging Doctor (MID), University Institute of Radiological and Medical Imaging Sciences, the University of Lahore, Gujrat, Campus

knowledge [7, 8]. PCOS may relates to genes, people should increase screening and are likely to get benefit from early lifestyle changes, which may help reduce one's cardiovascular risks [9]. PCOS which affects six % to twenty% of reproductive women, is the most common female endocrine disorder [10]. It is one of the main sources of barrenness and irregular periods, Hair growth, cystic acne, and weight gain. PCOS is more prevalent in Pakistani (52%) than in Western Caucasian (20%-25%) [11].

In 1990 the NIH diagnostic criteria for PCOS, was established which incorporate excess male sex hormones and infrequent period yet prohibit different issues that emulate PCOS, like grown-up beginning inborn adrenal hyperplasia, hyper prolactinemia, and androgen-emitting neoplasms. As per the Endocrine Society, PCOS ought to be analyzed when ladies have two of the accompanying side effects: overabundance androgen creation, anovulation, and pearl-sized blisters in the ovaries [12, 13].

Treatment for metabolic abnormalities includes lifestyle changes, medication and in some cases, bariatric surgery for obesity prevention and management [14]. Therapy aims to improve fertility, reduce hirsutism and alopecia, and provide endometrial protection to prevent endometrial cancer. Appropriate diagnosis and treatment strategies for long-term health consequences like diabetes, hypertension, and chance variables for cardiovascular illness (CVD) are basic [15, 16].

PCOS might be more normal in type 2 diabetics. A little gathering of exploration has checked out at PCOS commonness in type 2 diabetic ladies. Insulin-sensitizing medications should be used to treat diabetic patients with PCOS [17].

Diagnostic ultrasound is a type of imaging that creates images of structures inside your body. The scan can be used to diagnose and treat a wide range of diseases. Internal trans-vaginal ultrasound allows a doctor to examine your womb and ovaries much more closely and is the most commonly used method for diagnosing PCOS [18]. Imaging in PCOS is utilized to accurately distinguish and archive the presence of polycystic ovaries. The clinical meaning of unexpectedly found polycystic ovaries is obscure, and ladies who have this finding ought not be determined to have PCOS until additional testing is performed [19, 20].

## MATERIAL AND METHODS

A cross-sectional review was led between March 2022 to May 2022 for patients at Khalil Hospital Gujrat, Pakistan. Convenient sampling technique was used for obtaining sample size of 140 patients. All Female patients on daily routine were included. SPSS version 22 was used for data entry and analysis. Patients presented with irregular menstrual cycle, facial hairs, Obesity, infertility and Pain were included in the study. Males & pregnant females were excluded from the study. Toshiba Ultrasound Machine was used for screening female pelvis with TAS and TVS techniques.

## RESULTS

A sample size of 140 patients was taken in the study. Table (1) shows the quantity of the patients engaged with this research. 140 patients presented in the age ranges of (18-25), (26-35), (36-45), (46-55), respectively. Table (2)-Graph (1) Shows the Symptoms of patients most commonly Pain, Obesity and Irregular Periods. Pain 56(44.1%) patients, obesity in 36(25.7%) patients, Irregular Periods in 13(9.3%), Irregular Period-Pain-Facial Hairs in 16(11.4%), Infertility-Irregular Periods in 13(9.3%), Irregular Periods-Obesity 4(2.9%). Table (3)-Graph (2) Shows the Predominance of PCOS seen in Gujrat ladies that was in 48(34.3%) patients.

**Table 1: Shows Number of Patients**

| Statistics | | | |
|---|---|---|---|
| | | SYMPTOMS | PCOS |
| N | Valid | 140 | 140 |
| | Missing | 0 | 0 |

**Table 2: Shows Symptoms of Patients**

| SYMPTOMS | | | | | |
|---|---|---|---|---|---|
| | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | IRREGULAR PERIODS | 13 | 9.3 | 9.3 | 9.3 |
| | OBESITY | 36 | 25.7 | 25.7 | 35.0 |
| | PAIN | 58 | 41.4 | 41.4 | 76.4 |
| | IRREGULAR PERIODS, INFERTILITY | 13 | 9.3 | 9.3 | 85.7 |
| | IRREGULAR PERIODS,PAIN, FACIAL HAIRS | 16 | 11.4 | 11.4 | 97.1 |
| | IRREGULAR PERIODS,OBESITY | 4 | 2.9 | 2.9 | 100.0 |
| | **Total** | **140** | **100.0** | **100.0** | |
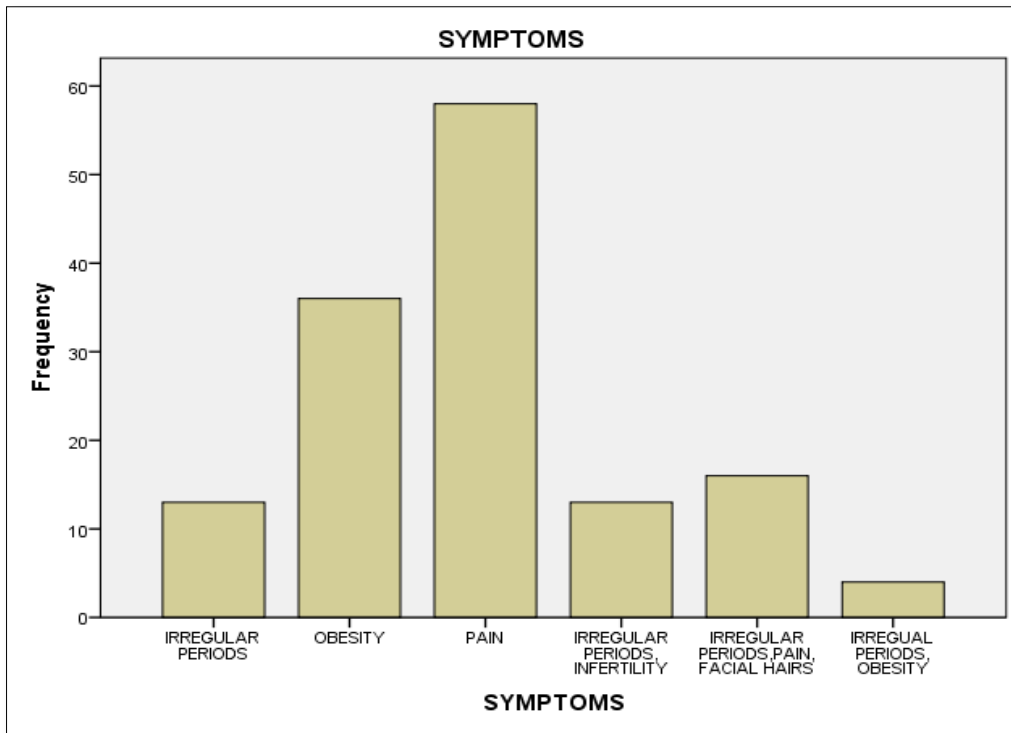
**Graph 1: Shows the Frequency of Symptoms**

**Table 3: Shows Prevalence of PCOS**

| PCOS | | | | | |
|------|------|-----------|---------|---------------|--------------------|
| | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | N0 | 92 | 65.7 | 65.7 | 65.7 |
| | YES | 48 | 34.3 | 34.3 | 100.0 |
| | **Total** | **140** | **100.0** | **100.0** | |
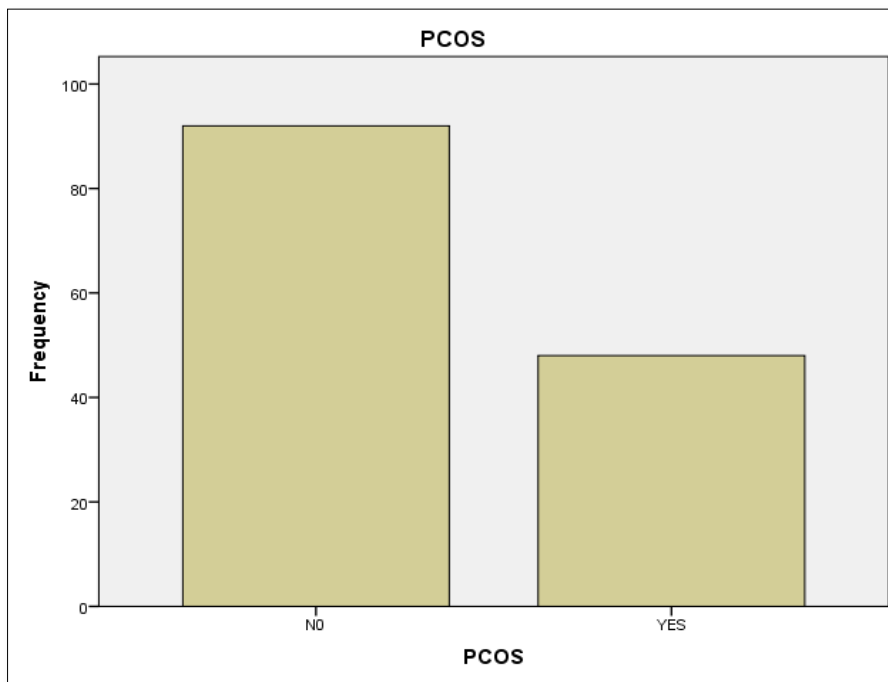


**Graph 2: Demonstrates the Frequency of PCOS**

# DISCUSSION

A study done by da Khan 3 in which 15-40 age women were involved concluded that, PCOs is more common in reproductive women. Our study was consistent with them, as current study also has PCOs in reproductive age women [21].

Harmandeep Gill *et al.,* conducted a student that concluded, that girls with facial hairs and irregular menstrual cycle are more likely to have PCOs. Our study supports consistent with regarding study, as we also found girls with Hirsutism & Menstrual irregularities were diagnosed PCOs [22].

In another Study Elham Sharif 1 *et al.,* included 18-30 age women having irregular menstrual cycle, obesity, as there sample size was small, they got prevalence of 18.33% in women. Our study relates to it as we diagnosed PCOs in women's having following complaints [23].

# CONCLUSION

PCOs is common in reproductive age women, most patients come with complain of pain 54(44.1%) and Obesity 36(25.7%) with Disturbed Menstrual cycle 13(9.3%) some were present with complain of Infertility 13(9.3%). PCOs were seen in 48(34.3%) patients. Ultrasound is very effective for diagnosing PCOs in early age. PCOs were found in 48 (34.3%) of the patients. Ultrasound plays vital role in early detection of PCOs.

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