AN INVESTIGATION OF DISTRIBUTION OF WOMEN SUFFERING FROM POLY CYSTIC OVARY SYNDROME TO DEMOGRAPHIC VARIABLES

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Abstract

Female infertility&an endocrine illness known as PCOS affect women of childbearing age. Moreover, due to its numerous multi-factorial complexities, PCOS is least understood endocrine disorder. Clinical manifestations&abnormal ovarian morphology, such as anovulation, oligo-amenorrhea, fertility-related issues, unfavourable uterine haemorrhage, are utilised to classify PCOS disorders. The aim of the study is to assess distribution of women suffering from poly cystic ovary syndrome to demographic variables. Methodology is based on the survey method. Data analysis utilised are SPSS for Windows, data was entered in MS-Excel (version 22.0). Results showed that Majority of women (67.3%) were b/w 18 -21 years&31% of them were b/w 22&25 years. Majority of women (99%) were married. With regard to all of education most of women (58.6% were noted to be Pursuing their undergraduate program thirty-five% (35.7%) became graduates. PCOS is identified as avoidable curable in women. Identifying threat factors plus creating awareness about syndrome would help to prevent & improve health seeking women.

*Keywords:*Polycystic ovary, women, demographic variables

Introduction

PCOS is a frequent contributor to hirsutism (HS), &anovulation is often linked to innate insulin resistance (IR) in females (Yasmin et al., 2022). This disorder impacts up to 6% of females of childbearing age &seems to start developing soon after menarche (Le et al., 2018). In particular, childbirth pregnancyis dangerous for women who are malnourished anaemic (Gour et al., 2022). This is also linked to other threat factors that are becoming more prevalent in PCOS, such as cigarette use, OBT, high blood pressure (BP)&high cholesterol. Additionally, Threat of unfavourable pregnancy outcomes like low birth weight (wt.) babies, stillbirths, congenital syphilis, neonatal deaths may be increased bisexually transmitted infection (Aryani et al., 2023). Similar to how being obese (OB)&overweight (OW) are linked to PCOS, high BP, physical activity is a major threat component for adult women (Hung et al., 2014). When a women loses wt., their endocrine profile improves, making ovulation conception more likely. Even a little wt. decrease of only 5% of total body wt. may be enough to restore regular ovulation (Shang et al., 2020). PCOS may be treated with a variety of methods, including food physical routine changes, medication even surgery. In that case early detection of PCOS is necessary. The aim of the study is to assess demographic variables of distribution of women suffering from poly cystic ovary syndrome.

Material and method

As a method for collecting data, an interview schedule was utilised among childbearing-aged women. An interview schedule is a list of specified questions that serve as a guide for Researchers, interviewers, investigators to gather information or information on a specific issue or topic.

After comprehensive literature review expertadvice, interview schedule was prepared to achievestudy objectives.

Demographic Profile: The demographic profile included information on Age, BMI, WHR, Marital Status, and Education.

Data analysis

The statistical approaches were carried out using SPSS for Windows, data was entered in MS-Excel (version 22.0). The variables were described usingdescriptive statistics for example standard deviation (SD), percentages&mean.

Result and Discussion

3.1 Distribution of Subjects according to Demographic Variables:

Demographic variables like age, BMI, waist-to-hip ratio, marital status, lvl. of education are shown in Table 1.

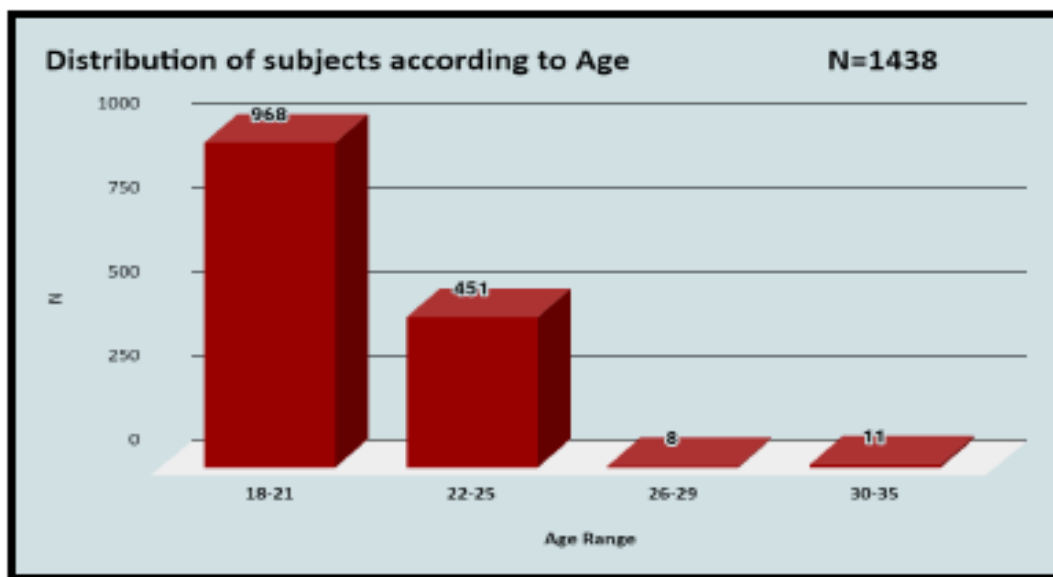**Table 1 Subjects' distribution per Demographic Variables**

S.No.	Variable	Range	N (per cent)	Mean
1	**Age**	18-21	968 (67.3)	20.58
		22-25	451 (31.4)	
		26-29	8 (0.6)	
		30-35	11 (0.8)	
2	**BMI**	<25	1153 (80.2)	21.6
		>25	285 (19.8)	
3	**WHR**	<0.85	1323 (92)	
		>=0.85 115 (8)		0.78
4	**Educational Status**	Higher Secondary	3 (0.2)	
		Pursuing UG	842 (58.6)	
		UG Completed	513 (38.7)	
		Pursuing Masters	74 (5.1)	
		Masters completed	6 (0.7)	
5	**Marital Status**	Married	14 (1per cent)	
		Unmarried	1424 (99per cent)	

3.1.1 Age:

Table 2 displaysage distribution ofsubjects, with largest proportion (67.3%) found among18-21 year old females, followed by those aged 30-35 (11.8%), &those aged 26-29 (8.2%). Figure 1 shows that median age was 20.58.1. Most responders were b/w ages of 25&44, which is prime childbearing years, majority of skilled workers.With 21.27% of students affected, this demographic clearly has highest prevalence of disease (Hussain et al,. 2015)[114].

Table 2: Subjects' distribution per Age

|	Frequency	per cent	Valid%	Cumulative%
18-21 years	968	67.3	67.3	67.3
22-25 years	451	31.4	31.4	98.7
26-29 years	8	0.6	0.6	99.2
30-35 years	11	0.8	0.8	100
Total	1438	100	100	

Figure 1:Subjects' distribution per Age

3.1.2 BMI:

Table 3 shows subjects 'distribution based on their BMI. According toBMI, 1153(80.2%) had less than 25 of BMI&285(19.8%) were equal to more than 25.Mean BMI was 19.8% as shown in Figure 2.

Table 3 Subjects' distribution per BMI

|	Frequency	per cent	Valid%	Cumulative%
<25 years	1153	80.2	80.2	80.2
>=25 years	285	19.8	19.8	100
Total	1438	100	100	
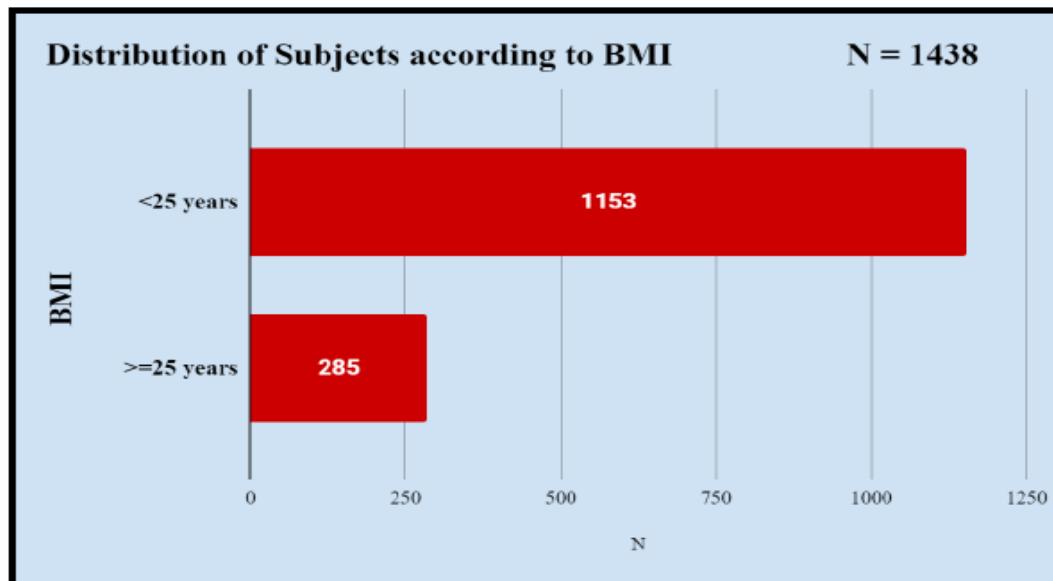
Figure 2:Subjects' distribution per BMI

3.2.3 WHR:

Table 4 shows subjects' distribution based on their WHR.In relation to WHR, it clearly depicts thatmajority of women 1323(92%)&115(8%) subjects had more than 0.85. The mean WHR was 0.78. This distribution explained in Figure 3

Table 4 Subjects' distribution per WHR

|	Frequency	per cent	Valid%	Cumulative%
<0.85 years	1323	92	92	92
>=0.85 years	115	8	8	100
Total	1438	100	100	
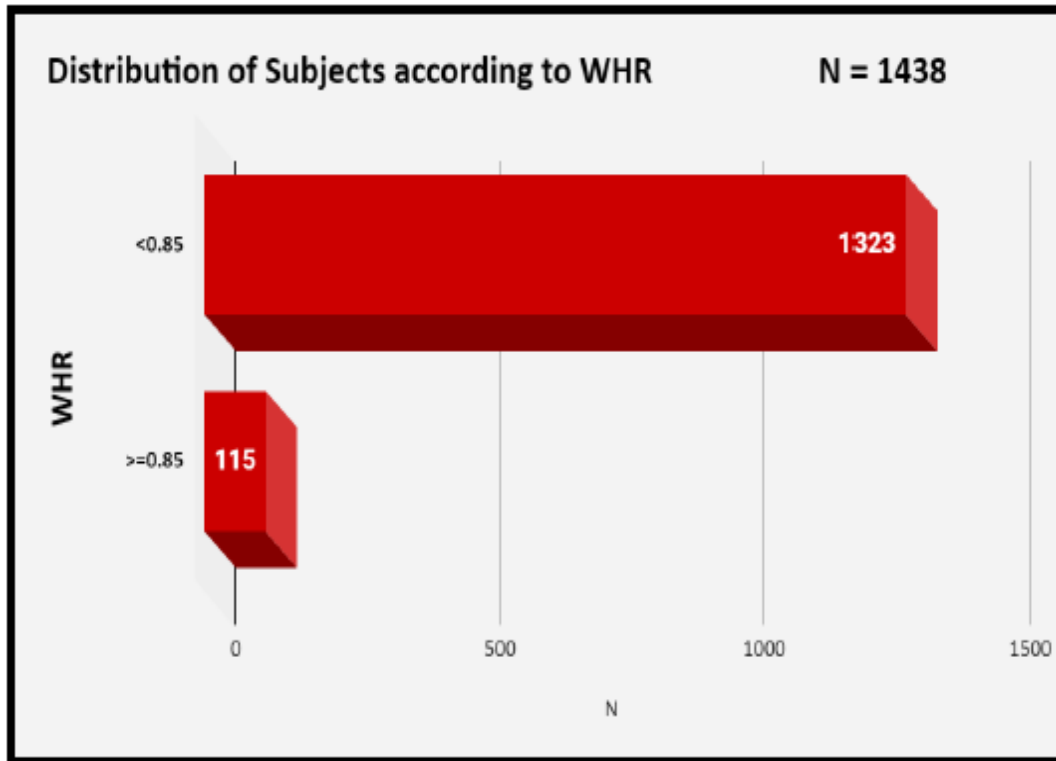
Figure 3:Subjects' distribution per WHR

3.2.4 Education:

Table 5 shows subjects' distribution based on their Education.According to educational qualification,table depicts that subjects spread over various educationlevel.(s) ranging from Higher Secondary to Masters which includes people pursuing Undergraduate&Postgraduate courses as well. 58.6% of entire population pursued undergraduate programs whereas 35.7% completed same which depicted in Figure 4.

Table 5:Subjects' distribution per Education

|	Frequency	per cent	Valid%	Cumulative%
Higher Secondary	3	0.2	0.2	0.2
Pursuing UG	842	58.6	58.6	58.8
UG Completed	513	35.7	35.7	94.4
Pursuing Masters	74	5.1	5.1	99.6
Masters completed	6	0.4	0.4	100
Total	1438	100	100	
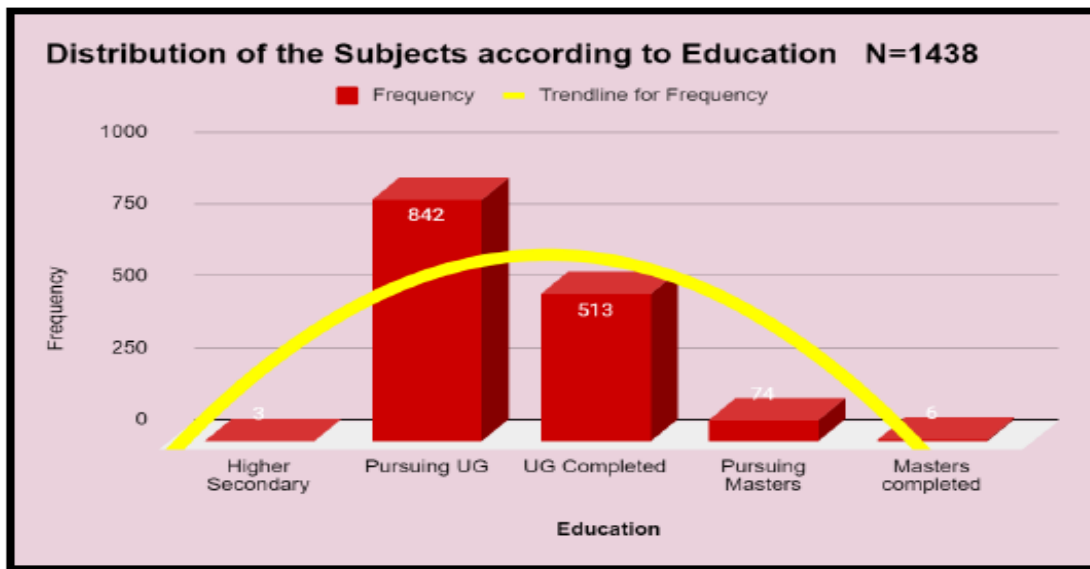
Figure 4:Subjects' distribution per Education

3.2.5 Marital status:

Table 6 shows subjects'distribution based on their Marital status.Onpoint of marital status of subjects, it's clearly found that most ofpopulation were unmarried.The table depicts that 1424 women out of 1438, which is 99%ofpopulation were unmarried. Nearly one% of subjects got married as perdata. No divorced women were identified (Figure 5).

Table 6:Subjects' distribution per Marital status

|	Frequency	per cent	Valid%	Cumulative%
Unmarried	1424	99	99	99
Married	14	1	1	100
Total	1438	100	100	
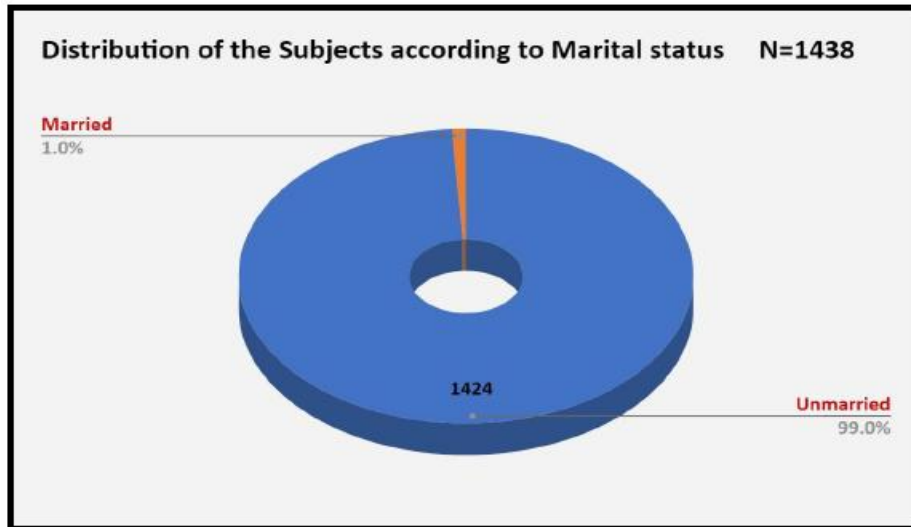
Figure 5: Subjects' distribution per Marital status

3.2.6 Menstrual Regularity

Among 1438 women, 1178 subjects had normal regular menstruation&260(18.1perecent) had irregular menstruation. Table 7 depicts classification according to Menstrual Regularity. This classification is shown in Figure 6.

Table 7: Classification per Menstrual Regularity

Menstrual Regularity	N (per cent) N=1438
Regular	1178 (81.9)
Irregular	260 (18.1)
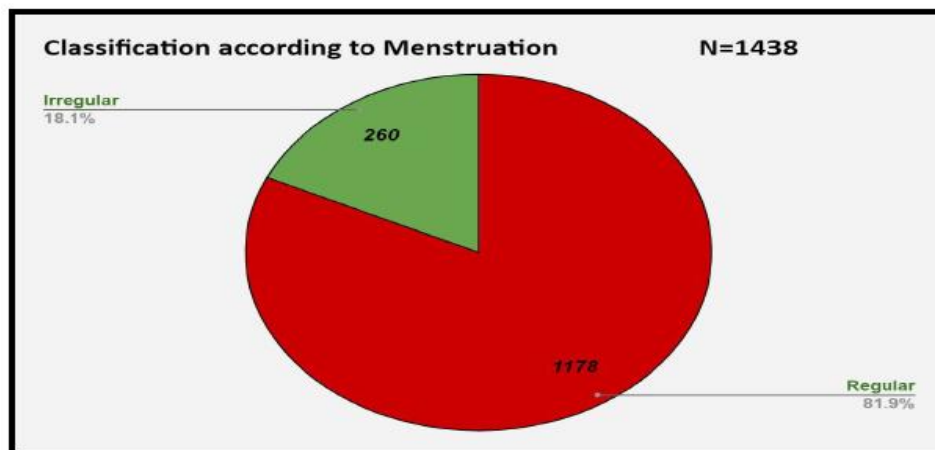
Figure 6: Classification according to Menstruation

Recently, self-management therapies in PCOS have been subject of research including 501 women having PCOS by Pirotta et al., (2021). The cross-sectional research found that self-management techniques for increasing physical activity increased chance of fulfilling physical activity guidelines but had no correlation with BMI. Whereas Kite et al. (2019) observed variations in glucose, wt.,BMI, WC, body fat, or fat free mass b/w diet alone diet plus exercise. encouraging healthy lifestyle changes in women having PCOS, including getting better sleep, may be crucial (Cowan et al., 2023).

Conclusion

Females who may have infertility throughout their reproductive years would benefit greatly from early identification treatment. To confirm that Age, BMI, Possible early PCOS subtype detection screening using key gene polymorphisms. More research into causes effects of PCOS is needed to develop effective preventative measures treatments.

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