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Knowledge & Factors Associated with Polycystic Ovarian Syndrome among Reproductive Age Group Women of Selected Rural Versus Urban Areas of Vadodara

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Abstract---

Background of the Study: *Polycystic ovaries are slightly larger than normal ovaries and have the number of follicles (small cysts). Polycystic ovarian syndrome produces symptoms in approximately 5% to 15% of women of Reproductive age 16 to 35 year old. The prevalence of polycystic ovarian syndrome depends on the choice of diagnostic criteria. About 18% of women had PCOS, and that 70% of were previously undiagnosed.*

Aims: *The aim of the study was to compare the Knowledge & factors Associated with Polycystic Ovarian Syndrome among Reproductive age group women of selected Rural versus Urban areas of Vadodara.*

Material and Methods: *Cross-sectional comparative descriptive survey design and quantitative approach was adopted to achieve the goal of the study. The study was conducted at three villages of Waghodia taluka and two urban areas of Vadodara, Gujarat. Total 200 reproductive aged women were recruited 100 subjects taken in each group by non probability convenient sampling method. Self structured knowledge questionnaire and checklist were utilized to assess knowledge and factors associated with PCOS.*

Result: *Out of 200 subjects, the prevalence of PCOS was 12.3% (24). The mean percentage of knowledge score in urban women was 58.8% while in rural women it was 43.86%. Majority Factors associated which affect the polycystic ovarian syndrome of Reproductive age group women. The researchers have identified that abnormal hair growth, family history of diabetes, acne, irregular menstruation, BMI > normal and high calorie diets are more prevalent factors among subjects. More than 3/5th urban women having factors associated with PCOS and 2/5th rural having factors associated with PCOS.*

Conclusion*: Study concluded that women from urban area were having higher knowledge as compare to rural area. Frequency of factors associated with PCOS also found to be high in urban setting.*

Keywords--- *Comparison, Knowledge, Factor Associated, Polycystic Ovarian Syndrome, Reproductive Age Group Women, Rural and Urban Area.*

I. INTRODUCTION

Reproductive age group is the period of transition childhood to adulthood and plays a decisive role in the formation of pro-social/ antisocial reproductive age groups.[1] "Women's reproductive health is a state of complete

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physical, mental and social well being and not merely the absence of infirmity, in all parts are connected to the reproductive system and its function, processes."[2]

Polycystic ovarian syndrome has been recognized by the national institute of health and Rotterdam criteri[3] as a it's relatively common endocrine disorder in women of reproductive age group.[1] It is characterized by the presence of at least one polycystic ovary (presence of multiple cysts) accompanied by ovulatory dysfunction and excessive secretion of androgens.[4] It's appears that several factors may be involved in its development. Perhaps the disease exists as a genetic predisposition in the person and its symptoms are exacerbated by environmental factors and life style[5] PCOS symptoms involve both endocrine and gynaecologic system; as menstrual irregularities- amenorrhea or oligomenorrhea, hirsutism, obesity, acne, androgenic alopecia and reproductive disorders.[6]

Women with polycystic ovary syndrome (PCOS) frequently presence of central obesity, glucose intolerance, dyslipidaemia and hypertension, which are clinical features of a condition of cardiac and metabolic disorders.[7] Globally, prevalence estimates of PCOS are highly variable, ranging from 2.2% to 26% of this age group depending on how it is defined these variations are due to difficulties in hormonal evaluation and lack of consensus on diagnostic criteria**.**[8] It is one of the leading causes of poor fertility.[9] PCOS is associated with a wide spectrum of presenting features, including anovulation obesity and abnormal facial and skin hair growth (hirsutism).[10] Women with PCOS are at an increased risk for infertility, preeclampsia, early pregnancy loss, and endometrial cancer.[11]

II. MATERIAL AND METHOD

A Cross-sectional comparative descriptive survey design was adopted for the present study. 200 reproductive age group women were recruited by non probability convenient sampling method at three villages of Waghodia taluka and two urban areas of Vadodara, Gujarat and data was collected by October 2019. The study protocol was approved from ethical committee of Sumandeep Vidyapeeth institutional ethical committee. Data collection permission was obtained from chief district health officer for Rural area and Medical officer of health for Urban area. Informed consent was taken from reproductive age women. The Data collection tools included three sections: socio-demographic, structured knowledge questionnaire and Checklist. And in the data collection aged of reproductive age group women was between 16-35 years are selected for study. Data were analysed using SPSS-22 software. Descriptive statistics (mean, standard deviation and chi-square) and inferential statistics (paired Z test, chi-square test) were used.

III. RESULTS

In the present study, the highest (26.5%) percentage of reproductive age group women were in the age group of 21-25 Years, majority (40%) of reproductive age group women had menarche at the age of 10-13 year and most them were (91%) having Hindu religion. There was marginally difference between education statuses of women. Maximum number of reproductive age group women was belonging from (38%) labour segment and most of them (48.5%) were unmarried. Data reveals maximum (60%) women belongs to nuclear family and the socio economic status of majority participants (33.5%) per month was < Rs 5000. Minor participants (16.5%) were having more than 1 month interval of menstrual cycle and 16% of them having complaint of severe dysmenorrhoea.

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Table 1: Analysis of Comparison of Mean, SD and Mean Percentage of Analysis Knowledge Score of Reproductive Age Group Women of Selected Rural Area and Urban Area.

N= 200

Sr. No	Knowledge aspect	Rural			Urban			Z Value
		Maxi-Mum	Mean	Mean Percentage	Maxi-Mum	Mean	Mean Percentage	
1.	**Introduction**	6	2.96	49	6	3.80	63	1.99
2.	**Risk Factors**	3	1.32	44	3	1.68	56	1.69
3.	**Causes**	4	1.76	44	4	2.28	57	1.83
4.	**Sign and symptom**	4	1.76	44	4	2.26	57	1.83
5.	**Diagnosis & Treatment**	6	2.36	39	6	3.44	57	2.54
6.	**Management**	7	3.00	43	7	4.18	60	2.40
7.	**Overall score**	30	13.16	43.86	30	17.64	58.8	14.16

When the Urban and Rural samples are compared with each other, we find significant increase of knowledge in the Urban sample in the categories of Introduction, Diagnosis & Treatment, and Management. In other categories, though there is increase in knowledge in urban sample compared to Rural, the difference in increase is not significant enough at 5% level of significance.

Table 2: Comparison of Reproductive Age Group Women to the Analysis Knowledge Level on Polycystic Ovarian Syndrome of Rural versus Urban Area of Vadodara

Knowledge of Urban V/S Rural					
			Urban / Rural		**Total**
			Rural	**Urban**	
Knowledge Category	**Inadequate**	Frequency	16	0	16
		Percentage	**16.0**	**0.0**	8.0
	Moderate	Frequency	84	94	178
		Percentage	**84.0**	**94.0**	89.0
	Adequate	Frequency	0	6	6
		Percentage	**0.0**	**6.0**	3.0
Total		Total Frequency	100	100	200
		Total Percentage	**100.0**	**100.0**	100.0

Above mentioned data shows that most of the participants having moderate level of knowledge about polycystic ovarian syndrome. Among them while compare the knowledge level of urban area participants is higher than rural area participants. None of the urban area participants were having inadequate knowledge and none of the rural area participants were having adequate level of knowledge regarding PCOS.

Table 3: The Comparison of Factors Associated with Urban and Rural Population is Given in the Table Below

Factors Associated with PCOD Urban V/S Rural					
Sr. No	**Factors**	**Frequency**		**Total frequency**	**Total Percentage**
		Urban	**Rural**		
1	**BMI > Normal**	39	34	73	36.5
2	**Irregular of menstruation**	52	38	80	40
3	**Abnormal hair growth on body**	24	61	85	6.5
4	**History of diabetes**	33	60	93	7.1
5	**Sudden weight gain**	37	46	83	6.3
6	**Hyper pigmentation**	35	49	84	4.4
7	**Acne**	55	54	109	8.3
8	**High calorie diet**	75	33	108	8.2

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Above cited table shows that the in comparison of Urban area and Rural area wise Factors associated of Reproductive age group women regarding polycystic Ovarian syndrome, the majority Factors associated are BMI > Normal, Irregular of menstruation hair growth on body, family history of Diabetes, sudden weight gain, hyper Pigmentation, Acne, High calorie diet in Urban and Rural area.

Chi square was calculated to examine the association between Knowledge score of polycystic with selected Demographic Variable. It is revealed that there is significant association found between knowledge score with Education Qualification, Occupation, Marital Status, Socio economic status and BMI. There was no significant association found between knowledge score with Age, Religion and Types of Family

IV. DISCUSSION

The present study revealed that women were having moderate level of knowledge regarding PCOS. This same type of findings present in the study priya NP, where all samples were moderately knowing about PCOS.[12] The study conducted by Deswal R. Out of 2400 samples from urban and rural area prevalence of 67 of women with PCOS resided in urban regions and 27 in rural regions.[13] The present study revealed that out of 200 samples from urban rural area prevalence of 19 of women with PCOS resided in urban regions. and 5 in rural regions.

The study conducted by Parmar Neha their data shows that there was a significant association with knowledge score with selected demographic variables.[14] the present study also revealed that the demographic variables like education, occupation, socio economic status were significantly associated with knowledge score.

Limitations: The study is limited to few Vadodara distract sample size and number of subject's limits generalization of the study.

V. CONCLUSION

The study findings shown that Out of 200 subjects, the prevalence of PCOS was 12.3% (24). The researchers have identified that abnormal hair growth, family history of diabetes, acne, irregular menstruation, BMI > normal and high calorie diets are more prevalent factors among subjects. Study concluded that women from urban area were having higher knowledge as compare to rural area. Frequency of factors associated with PCOS also found to be high in urban setting. Early identification by health care team is very important for prevention of complications. Further re research is needed to identify effective strategies for using primary care for recognizing, diagnosing, and treating regarding risk factors of PCOS among the reproductive age group women.

Ethical Approval

Since the study involved human subjects, a formal ethical approval received from Sumandeep Vidyapeeth institutional ethical committee.

Informed Consent

Informed consent was obtained from participants and assured for anonymity.

Declaration of Interest

The author declares that there is no financial and personal relationship with other people and organizations.

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Conflict of Interest

The authors declare no conflict of interest.

Finding

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