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Research Article

Impact of socio-economic status on poly cystic ovarian syndrome (A study at Anantapur district, Andra Pradesh.)

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Abstract: Polycystic ovarian syndrome (PCOS) is a common female endocrine disorder with prevalence ranging from 2.2 to 26 percent among reproductive age women between 15 to 44 years with or without children. So the aim of the study is impact of socioeconomic status on polycystic ovarian syndrome among reproductive women. **Material and Methods:** A descriptive study was conducted among 60 reproductive age group women in rural areas of Bukkarayasamudram Mandal, Anantapuramu District. An interview schedule was used for data collection. A simple random sampling technique was used for selection of sample. **Results:** The results of the study population comprised of 60 reproductive age women. The majority of represents 30 (50 percent) are getting < Rs.10000 per month family income. The analysis of the symptoms experienced by PCOS women showed that 78.3 percent gained weight,82 percent experienced irregular bleeding,56 percent acne problems,64 percent pelvic pain,25 percent had metabolic disorders, a few represents 7.3 percent had infertility,36.7 percent had depression and anxiety, 65 percent hirsutism. **Conclusion:** The results of study revealed that women who belongs to low socioeconomic status in childhood are at increased risk of PCOS, but this risk is limited to who attain higher education. More research is needed to determine the childhood socioeconomic factors that might influence the risk of life style modifications associated with upward life mobility play a vital role on reproductive age group women with symptoms and diagnosis of PCOS.
Keywords: reproductive age, Menstruation, metabolic disorder.

INTRODUCTION

In the present world Maintenance of women health is a major concern because they are giving enough competition for men in all the fields due to this life style changes in women her physical and mental health undergone some changes example weight gain, emotional disturbances, menstrual changes. Menstruation is a natural phenomenon and an important indicator for women's reproductive health. Menstruation is a process in a woman of discharging blood and other material from the lining of the uterus at intervals of about one lunar month from puberty until the menopause. The average duration of menstrual cycle is around 28 days, the average length of menstrual cycle is differed from one person to another person and if it is showing any unexpected or delayed does not always mean something serious is going on, but your period showing up whenever it may be stressful and sudden variation from average length and flow means it's a sign that period is irregular. A woman with irregular menstrual cycles excess, facial and body hair,

adult acne, weight gain, infertility and enlarged ovaries she may have poly cystic ovary syndrome. There are four most common causes that can delayed or early period i.e.1.medication ,2. stress and anxiety,3. puberty or menopause,4. Hormonal birth control such as contraceptive pills or emergency contraception.

Balen.A Best pract Resclin obstetrics Gynaecology (2017) Says PCOS is an inherent ovarian dysfunction that strongly influenced by external factors of low socioeconomic status, poor nutrition, smoking, sedentary life style. It is associated with increased metabolic dysfunction leads to disturbances of the hypothalamic-pituitary-ovarian axis and hyperinsulinemia which results oligo or anovulation and hyperandrogenism, with associated fertility problems, obesity and psychological issues. Among this Obesity is present in 30-75 % of women with polycystic ovarian syndrome due to glucose intolerance and hyperinsulinemia in adipose dysfunction which

exaggerate the manifestations of hyperandrogenism that are hirsutism, acne, alopecia.

Polycystic ovarian syndrome is an unfortunate condition that affects 5-10% of reproductive age group women and approximately 70-90% of women with irregular menstrual cycles (Aziz et.al 2004). As per PCOS awareness Association (2012) Polycystic ovarian syndrome occurs in over 10000000 people worldwide. WHO estimates that 116 million women (3.4%) has affected with Polycystic ovarian syndrome at worldwide in 2012.In India experts claims 10% of the women to be affected by Polycystic ovarian syndrome, one in every 10 women had Polycystic ovarian syndrome. (vidya Bharathi, Usha middle east fertility society journal volume 22 issue 4, Dec-2017). Studies done in south India and Maharashtra, prevalence of PCOS (by Rotterdams criteria) were reported as 9.13 and 22.5 percent and 22.5 percent (10.7 percent by Androgens Excess Society Criteria) respectively.

Manisha .m. ladded, Nitin .s.et.al conducted a study on prevalence and determinants of PCOS among adolescent girls in rural areas Karad ,Maharashtra at OPD Department of OBG ,Krishna institute of medical sciences. prospective study among 150 adolescent girls it shows with prevalence of 17.33 percent and study concluded that PCOS is increasing in adolescence so the life style modification is imperative to prevent long term metabolic and reproductive complications.

However menstrual experiences data and its impact on health status, quality of life and social integration of women in developing countries is scanty and there are no specific criteria for diagnosis and treatment for PCOS. Doctors shows major concern on individual issues like weight gain, infertility etc and Only alternate method for prevention of this is life style modification. Despite of relatively high prevalence the etiology and natural history of PCOS are unknown current theories suggest that increased risk of PCOS may involve combination of genetic susceptibility and a myriad of environmental factors, including diet, lifestyle, and social factor. For better understanding of this relatively common syndrome is further underscored by growing evidence that PCOS is strongly associated with several Hormonal and metabolic conditions, including insulin resistance, type 2 diabetes mellitus, hypertension and dyslipidemia, the metabolic syndrome and cardiovascular outcomes.

The association of Polycystic ovarian syndrome and socioeconomic status might shed light on environmental role in the development of this condition. Current researches show that individuals with lower SES are more risk for engaging in adverse health behaviour, including lack of physical activity, and poor nutritional diet, may associated with obesity with low SES. Studies also reveals that smoking and obesity can exacerbate insulin resistance, this condition highly correlated with and part of the pathogenesis of Polycystic ovarian syndrome. Moreover, there is clear evidence of an association between low SES and metabolic syndrome and its various components consider that symptoms will begin in adolescence, we chose to examine for life course from childhood to adult hood.

METHODOLOGY

A descriptive study was conducted among 60 reproductive age group women in rural areas of Bukkarayasamudram mandal, Anantapuramu district, Andhra Pradesh. In this study the sample was selected from Bhadrampalli, Raghavendra colony and BJP Kottala rural areas of Bukkarayasamudram mandal, Anantapur district. A simple random sampling technique was used for the study. The data was collected by using an interview schedule. The schedule consists of socio-economic, demographic profile include age, religion, education, family income, marital status, occupation, source of information, family life style, status of poly cystic ovarian syndrome signs and symptoms and health problems of reproductive age group women in the study area.

RESULTS

The study population comprised of 60 reproductive age women. As per the age 43.33 percent represents between 20-30 years, according to religion 53.33 percent are Hindus, 23.33 percent are Christians and 23.33 percent are Muslims, 40 percent are studied up to primary education 33.33 percent are studied up to secondary education only 13.33 are graduates and 13.33 percent are illiterates. 50 percent represents are getting Family income < 10000 per month, 30 percent are getting between 10000 to 20000 per month, only 20 percent are getting >20000 per month.50 percent represents are housewives, 30 percent are labour and 20 percent are employees.66.66 percent were marrieds and 33.33 percent represents are unmarried. Source of information reveals that 46.66 percent got information from health personnel, 66.66 percent were fallowing modern life style and 33.33 percent represents are fallowing traditional life style.

Table-1 Demographic Characteristics of Reproductive age women with PCOS n=60

S. No.	Variables	Frequency	percentage
1	**Age**		
	< 19 years	14	23.33
	20-30 years	26	43.33
	30- 40years	14	23.33
	>40 years	06	10
2	**Religion**		
	Hindu	32	53.33
	Muslim	14	23.33
	Christian	14	23.33
3	**Education**		
	Illiterate	08	13.33
	Primary education	24	40
	Secondary education	20	33.33
	Graduation or above	08	13.33
4	**Family Income**		
	< Rs10000 per month	30	50
	Rs 10000-20000 per month	18	30
	>Rs 20000 per month	12	20
5	**Occupation**		
	House wife	30	50
	Labour	18	30
	Employee	12	20
6	**Marital status**		
	Married	40	66.66
	Unmarried	20	33.33
7	**Source of information**		
	Family members and friends	10	16.66
	Mass and social media	10	16.66
	Health personnel	28	46.66
	Books and journals	12	20
8	**Family life style**		
	Modern	40	66.66
	Traditional	20	33.33

Table-2: Association between socioeconomic factors and reproductive age women with PCOS n=60

S.no	Socio-economic factor	Chi-square value	Degrees of freedom	Table Value
1.	Age	18.79*	6	12.59
2.	Religion	06.25**	4	9.49
3.	Education	15.52*	6	12.59
4.	Family income	24.75*	4	9.49
5.	Occupation	15.58*	4	9.49
6.	Marital status	2.24**	2	3.84
7.	Source of information	18.79*	6	12.59
8.	Family life style	02.24**	2	3.84

$P<.005$ *Significant **Non-Significant

Association between socio-economic factors and PCOS was done using chi-square test as shown in table-2 revealed that there is significant relationship between age, education, family income, occupation and source of information with PCOS. There is no significant with religion, marital status and life style of represents with PCOS.

Rubin KH, Andersen MS, Abrahamsen B, Glinborng D (2019) conducted study on socioeconomic status in Danish women with polycystic ovary syndrome. The results of the study show that women who were unemployed and there are no welfare programmes had a higher probability of PCOS diagnosis than women with affiliated income. The study concludes that diagnosis of PCOS was associated with

lower SES and women of foreign origin and women with obesity more often had low SES.

DISCUSSION

PCOS is occurring more frequently in the young Indian women than before, most of the women are labeled with PCOS too early in their life when their physiological systems are still maturing. A lot of women experience anxiety because they have a limited understanding of PCOS and most of the Women surveys says that PCOS is underdiagnosed. The study conducted by Anjali Choudhary, Shweta Jain, Priyanka Chaudhary in Uttarakhand (2017) revealed that percentage of obese women was 38.5% and non-obese were 49%, varying degrees of hirsutism 64%, ache 54% and alopecia 24% they concluded need of times is to recognize these young women and correct the hormonal and metabolic disorder in time to rescue them before PCOS becomes a full-blown metabolic syndrome. In present study observations 78.3 percent gained weight,82 percent experienced irregular bleeding,56 percent had acne problems,64 percent had pelvic pain,25 percent had metabolic disorders, a few represents 7.3 percent had infertility,36.7 percent had depression and anxiety. 65 percent hirsutism and 80 percent represents unaware about treatment of PCOS.

In a study of the health-related quality of life and polycystic ovarian syndrome among Iranian patients, results show that most common concern was menstrual irregularities and infertility fallowed by hirsutism, weight gain, emotional changes and acne. Among the PCOS symptoms two thirds of the sample had infertility and changeable menstruation (Fatemeh Bazarganipour *et al.,* 2013).

Polycystic ovarian syndrome is becoming a more prevalent disorder among reproductive age group women with lifelong complications are adding to the health care burden to the world Moreover, as it is common among reproductive age caused by hormonal imbalance due to unhealthy habits and stressful lifestyle. It needs time to recognize in young women and correct the hormonal and metabolic syndrome. Recent studies suggest that need to improve uniform diagnostic criteria and well awareness on clinical manifestations of PCOS and weight reduction is main preventive and therapeutic potential measures to combat with problem it can be achieved by incorporating lifestyle modifications (Thakur Jyotsna International journal of research). In this study there was a positive and significant association between socio economic factors on health problems of reproductive age women.

CONCLUSION

Our results indicate that most of women complained irregular bleeding fallowed by weight gain, hirsutism, pelvic pain, acne, metabolic disorders etc. Women under low economic status with high level of

education, adverse living and working conditions, stress and family life style modifications are the main associated factors for PCOS. More research is needed to determine the childhood poor economic status, high level of education and life style modifications of reproductive age group women associated with symptoms and diagnosis of PCOS.

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