



## A STUDY TO IDENTIFY HIGH RISK FEMALES FOR PCOS IN THE VIEW TO DEVELOPE AND ADMINISTER AWARENESS TEACHING PROGRAM ON PCOS AMONG UNDERGRADUATE NURSING STUDENTS.

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### ABSTRACT

**BACKGROUND:** Women's overall health and well-being are dependent on their sexual and reproductive health. It's crucial to their ability to make choices and decisions about their lives, such as when and whether to have children. Sexual and reproductive health encompasses not only physical well-being, but also the right to healthy and respectful relationships, inclusive, safe, and appropriate health services, accurate information, effective and affordable contraception, and timely support and services in the event of an unintended pregnancy. Menstruation, fertility, cervical screening, contraception, pregnancy, sexually transmissible infections, chronic health problems (such as endometriosis and polycystic ovary syndrome), and menopause are all linked to distinct life stages for women's sexual and reproductive health. PCOS is a problem with hormones that affects women during their childbearing years (ages 15 to 44). Between 2.2 and 26.7 percent of women in this age group have PCOS. **AIM:** To identify high risk females for PCOD in the view to develop and administer awareness teaching program on PCOD among undergraduate nursing students of Uttarakhand. **MATERIAL & METHODS :** The Quantitative approach and Pre-experimental design with one group pre-test – post-test design was used. Simple random sampling technique was used to collect the 110 undergraduate nursing students. The study was conducted in selected nursing college. Pre-test was done by using Demographic Performa and knowledge questionnaire. The prevalence of PCOS was assessed through PCOS prevalence scale. PCOS awareness teaching Program was implemented after pre-test. Post test was conducted seven days after pre-test. Descriptive statistics includes frequency, percentage, mean, standard deviation was used to describe the result. Inferential statistics like paired t test, Chi square test, were used to find the effectiveness and association. **RESULTS:** Majority of students 83( 75.45%) were in age group of 18-20 years and 96.56 % students were unmarried. Majority of students 83( 75.45%) were Hindu & father's of majority of students were govt employee whereas mothers of majority of students were homemaker. He family income of majority of students were 10,000- 15,000m majority of students were from nuclear family, the age of menarche for majority of students was 14 year, and average days & cycle of menstruation were 28 days, majority of students had no history of smoking & majority 96.36% of students had no associated gynaecological problem. The finding of the study revealed that only 1% of students had mild symptoms of PCOS. The mean of post test knowledge score is 0.702, and SD is 23.49 which revealed evaluation & effectiveness of awareness teaching program by conducting post test after administration of awareness teaching program, hence there is enhancement in knowledge regarding PCOS, The age of study participants was significant associated with knowledge regarding PCOS.

**CONCLUSION:** The conclusion of the study was only 1% of study participant had symptoms of PCOS & The awareness teaching program on PCOS was effective to raise the awareness among undergraduate nursing students.

**KEYWORDS:** PCOS, High Risk Females, Awareness Teaching Program , Undergraduate Nursing Students

## INTRODUCTION

Women and men share many similar health problems, but women have their own health issues, which deserve special consideration. Women's lives have changed over the centuries. Historically, life was particularly difficult for most women. It is important that every woman has access to knowledge related to the spectrum of women's health issues, not only about her reproductive system, but about all aspects of her body. Since the female reproductive system plays such an important role throughout the life of a woman, it receives special consideration<sup>1</sup>. Although the primary function of the reproductive system is to conceive and bear children, a female's reproductive system makes a major contribution to her overall womanhood. Due to the complexity of her reproductive system, she can experience a number of problems ranging from yeast infections of the vagina to fibroids of the uterus or cysts of the ovary<sup>2</sup>. Think you know all there is to know about your period? Women have about 450 periods during their lifetime, which means you have plenty of chances to learn all about it. Even so, your period can still manage to surprise you -- and not just by showing up when you least expect it. Every woman is different -- including her periods. Some happen like clockwork. Others are hit or miss and unpredictable<sup>3</sup>. On average, a woman gets her period every 24 to 38 days. A period usually lasts about 2 to 8 days. PCOS is a problem with hormones that affects women during their childbearing years (ages 15 to 44). Between 2.2 and 26.7 percent of women in this age group have PCOS<sup>4</sup>. Polycystic ovary syndrome is a condition in women characterized by irregular or no menstrual periods, acne, obesity, and excess hair growth. PCOS is a disorder of chronically abnormal ovarian function and hyperandrogenism (abnormally elevated androgen levels). It affects 5-10% of women of reproductive age. PCOS is also called the Stein-Leventhal syndrome<sup>5</sup>. The polycystic ovary syndrome (pcos) is the most common endocrine disorder in women worldwide. The syndrome is characterized by ovulatory dysfunction, hyperandrogenism polycystic ovaries [PCOS] these features can lead to multiple symptom with systemic as well as organ specific aberration. As PCOS is associated with several other disease morbidity-related factor such as obesity and other cardiovascular disease (CVD) risk factor which are becoming more prevalent among females today<sup>6</sup>. PCOD was first reported in 1935 by two Gynaecological physician in Chicago Drs Stein and Levan that who noticed women with irregular cycle and facial hair had small fluid filled sacs in both ovaries therefore coined the name polycystic ovarian syndrome<sup>7</sup>. In one study among women in the US these; was an 8.0% prevalence among African Americans and 4.8 % prevalence among Caucasians. There was a 6 – 8 % prevalence in Greek women and 6.5% prevalence among woman in married Spain. Mexican American's have one of the highest rates, with a 13% prevalence. It is possible this is due to the greater degree of insulin resistance and type-2 diabetes among this population<sup>8</sup>. WHO estimates that PCOS has affected 116 million women (3.4%) worldwide in 2012. Globally prevalence estimates of PCOS are highly variable, ranging from 2.2% to as high as 26%<sup>9</sup>. In India experts claim 10% of women to be affected by PCOS and yet no proper published Statistical data on the prevalence of PCOS in India is available. Polycystic ovary syndrome is common reproductive and endocrinologic disorder found in 6 to 10% of the female population. This syndrome can also be associated with metabolic issues including obesity, insulin resistance found in 60-80% of women with PCOS. This is further associated with cardiovascular problems, neurological and psychological effect on quality of life including anxiety and depression<sup>8</sup>.

The women suffering with PCOS might be not aware about this disease. The symptoms that can be easily noticeable are Hair growth in unwanted area, Hair loss, Weight problem, Acne or oily skin, Problem in sleeping, Feeling of tired all time, Headache, Period problem, If these symptoms can be recognizable earlier it can be cure at be early stage. The diagnosis of PCOS are: Doctor may check of blood pressure, glucose tolerance and cholesterol and triglyceride level. Screening for depression and anxiety, Screening for obstructive sleep apnoea<sup>10</sup>.

## NEED & BACKGROUND OF STUDY

As polycystic ovary syndrome (PCOS) is a widespread reproductive disorder that encompasses many associated health conditions and has an impact on various metabolic processes. There is no known cause of PCOS, however there has been evidence that shows both environmental as well as genetic factors play a role in the etiology. Despite the high and increasing incidence of PCOS among the population, there are several aspects that remain ambiguous<sup>8</sup>. Few studies have been conducted that grasp PCOS in its entire complexity. As In few Asian countries, prevalence figures are ranging from 2% to 7.5% in china and 6.3% in Srilanka. there are

few studies conducted in India. Studies done in south India and Maharashtra, prevalence of PCOS (by Rotterdam's criterion) were reported as 9.13% and 22.5% (by androgen excess, society criteria respectively)<sup>11</sup>. Despite decreased attention to PCOS, one of the most vital aspects of this study, Women with polycystic ovary syndrome are more likely to trust a specialist vs. a primary care provider to treat their PCOS-related concerns and report dissatisfaction overall with the level of emotional support they receive from their providers according to new survey results published in the Journal of the Endocrine Society<sup>12</sup>. According to WHO, it affects 2.2 to 20% of reproductive age women PCOS may first present in adolescence<sup>13</sup>.

### STATEMENT OF THE PROBLEM:

A STUDY TO IDENTIFY HIGH RISK FEMALES FOR PCOD IN THE VIEW TO DEVELOPE AND ADMINISTER AWARENESS TEACHING PROGRAM ON PCOD AMONG UNDERGRADUATE NURSING STUDENTS OF BSC 1<sup>ST</sup> YEAR.

### OBJECTIVES OF THE STUDY

- 1) To identify the high risk females for PCOD
- 2) To evaluate the effectiveness of awareness teaching program on PCOS among undergraduate nursing students.
- 3) To find out association of knowledge regarding PCOS among undergraduate nursing students with their selected demographical variables.

### HYPOTHESIS

H<sub>1</sub>- There will be significant difference between pre-test & post test knowledge score regarding PCOS among undergraduate nursing students.

H<sub>2</sub>- there will be significant association between knowledge regarding PCOS among undergraduate nursing students with their selected demographical variables.

### MATERIAL & METHODS:

The Quantitative approach and Pre-experimental design with one group pre-test – post-test design was used. Simple random sampling technique was used to collect the 110 undergraduate nursing students. The study was conducted in selected nursing college. The undergraduate nursing students who were willing to participate in the study, present at the time of data collection were included in the study. The investigator had collected the data after getting permission from the authority and approval was obtained to conduct the study. The participants were informed about the purpose of the study and written consent was taken from the participants. Pre-test was done by using Demographic Performa and knowledge questionnaire. The prevalence of PCOS was assessed through PCOS prevalence scale. PCOS awareness teaching Program was implemented after pre-test. Post test was conducted seven days after pre-test. Descriptive statistics includes frequency, percentage, mean, standard deviation was used to describe the result. Inferential statistics like paired t test, Chi square test, were used to find the effectiveness and association.

## RESULTS

### SECTION –A

Table-1

Frequency and percentage distribution of the socio demographic characteristics of the undergraduate nursing students

**n =110**

S.no.	Variables	Frequency (f)	Percentage%
1.	<b>Age of females -</b>		
	16-17 years	12	12%
	18-19 years	83	75%
	20-21 years	13	12%
	22 year & Above	2	1%
2.	<b>Marital status</b>		
	Married	4	4%
	Unmarried	<b>106</b>	<b>96%</b>
3.	<b>Religion-</b>		
	Hindu	<b>103</b>	<b>94%</b>
	Muslim	6	5%
	Christian	1	1%



<b>4.</b>	<b>Occupation of father-</b> Government employee Private employee Daily wages Not working	<b>67</b> 28 9 6	<b>61%</b> 26% 8% 5%
<b>5.</b>	<b>Occupation of mother -</b> Government employee Private employee Daily wages Not working	<b>8</b> 4 1 97	<b>7%</b> 4% 1% 88%
<b>6.</b>	<b>Family income per month-</b> Less than 5,000 5,000 to 10,000 10,000 to 15,000 More than 15,000	4 7 25 74	4% 6% 23% 67%
<b>7.</b>	<b>Types of family-</b> Joint family Nuclear family Extended family	46 58 6	42% 53% 5%
<b>8.</b>	<b>Age at menarche-</b> 10-11 years 11-12 years 12-14 years Above 14 years	16 27 43 24	14% 26% 39% 22%
<b>9.</b>	<b>Days/ cycle of menstruation</b> 30 days 28 days Less than 28 days More than 30 days	16 75 13 6	14% 69% 12% 5%
<b>10.</b>	<b>Family history of PCOS</b> YES NO	2 108	2% 98%
<b>11.</b>	<b>Any associated gynaecological problem</b> YES NO	4 106	4% 96%
<b>12.</b>	<b>History of smoking / alcohol consumption</b> YES NO	2 108	2% 98%

**SECTION –B****Table-2**

**Frequency and percentage distribution of undergraduate nursing students according to their PCOS prevalence scale**

**Prevalence scale –**

<b>S.No</b>	<b>Prevalence rate</b>	<b>Frequency (f)</b>	<b>Percentage%</b>
<b>1.</b>	No Symptoms	109	99%
<b>2.</b>	Borderline Symptoms	00	00
<b>3.</b>	Mild Symptoms	1	1%
<b>4.</b>	Moderate Symptoms	00	00
<b>5.</b>	Sever Symptoms	00	00

**SECTION –C****Table-3**

Pre-test level of knowledge of undergraduate nursing students regarding PCOS  
n =110

LEVELS	FREQUENCY	PERCENTAGE
POOR	41	37.27%
AVERAGE	69	62.73%
GOOD	00	00%

**Table-4**

Post-test level of knowledge of undergraduate nursing students regarding PCOS  
n =110

LEVELS	FREQUENCY	PERCENTAGE
POOR	05	4.54%
AVERAGE	78	70.90%
GOOD	27	24.56%

**Table-5**

Overall comparison mean and percentage, SD of Pre test & post test knowledge score, with

S.no	Category	Mean	Mean %	SD
1.	Pre test knowledge	0.48	48.5%	16.70
2.	Post test knowledge	0.702	70.2%	23.49

**Table –6**

paired t- test table

S.no	Research variable	Calculated t value	Table value	df	Inference
1.	Knowledge regarding PCOS	39.73	1.98	109	SIGNIFICANT

**DISCUSSION**

Major findings of the respondent of study –

Majority of students 83( 75.45%) were in age group of 18-20 years and 96.56 % students were unmarried . Majority of students 83( 75.45%) were Hindu & father's of majority of students were govt employee whereas mothers of majority of students were homemaker. He family income of majority of students were 10,000-15,000m majority of students were from nuclear family , the age of menarche for majority of students was 14 year , and average days & cycle of menstruation were 28 days, majority of students had no history of smoking & majority 96.36% of students had no associated gynaecological problem .

Finding of the study can be analysed in following way -

**OBJECTIVES OF THE STUDY**

- 1) To identify the high risk females for PCOD

The finding of the study revealed that only 1% of students had mild symptoms of PCOS.

- 2) To evaluate the effectiveness of awareness teaching program on PCOS among undergraduate nursing students.

The findings of this study revealed evaluation & effectiveness of awareness teaching program by conducting post test after administration of awareness teaching program, hence the mean of post test knowledge score is 0.702, and SD is 23.49. And there is enhancement in knowledge regarding PCOS.

- 3) To find out association of knowledge regarding PCOS among undergraduate nursing students with their selected demographical variables.

The finding of study revealed that age of study participants was significant associated with knowledge regarding PCOS .

**HYPOTHESIS**

**H<sub>1</sub>**- There will be significant difference between pre-test & post test knowledge score regarding PCOS among undergraduate nursing students.

The mean knowledge score of pre test was 0.48 and post test was 0.702. paired t test finding revealing that, the calculated value of t was more than tabulated value m, hence the null hypotheses was rejected.

**H<sub>2</sub>**- there will be significant association between knowledge regarding PCOS among undergraduate nursing students with their selected demographical variables.

Age is significantly associated with knowledge score of students, hence we accept the hypotheses.

## CONCLUSION

Health education is a primary response of the nurse who is called to be a caregiver with knowledge expertise. the nursing personnel are challenged to provide standard & quality nursing care. There is a need for the nurses to be active part to restore the life of client who are sick & well, young & old to maximum function capacity. Nurses should be equipped with updated knowledge regarding health hazards of PCOS to prevent complication & certain other diseases. Educators should arrange more awareness programs for all the suitable population. Although the results of the study does not suggest severe PCOS prevalence students, but concern should be generated for prevention of it. There should be more awareness strategies, health education programs & modules o raise awareness regarding PCOS.

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**Ethical clearance :** No Ethical Issue

**Conflict of interest:** There Is No Conflict Of Issue Exist.

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