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A Study on identification of risk factors in developing Poly Cystic Ovarian Syndrome among teenagers and minimizing them by Life Style Modifications through Advanced Patient Counselling by Doctor of Pharmacy

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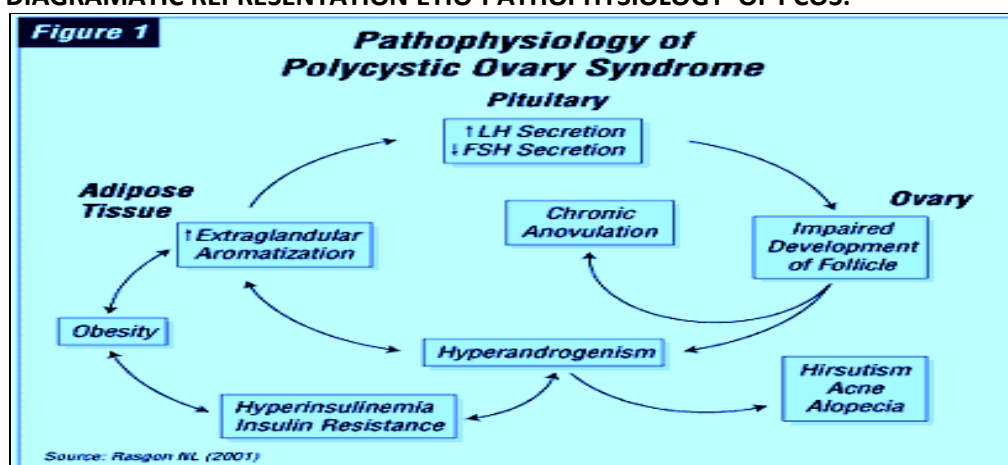
ABSTRACT

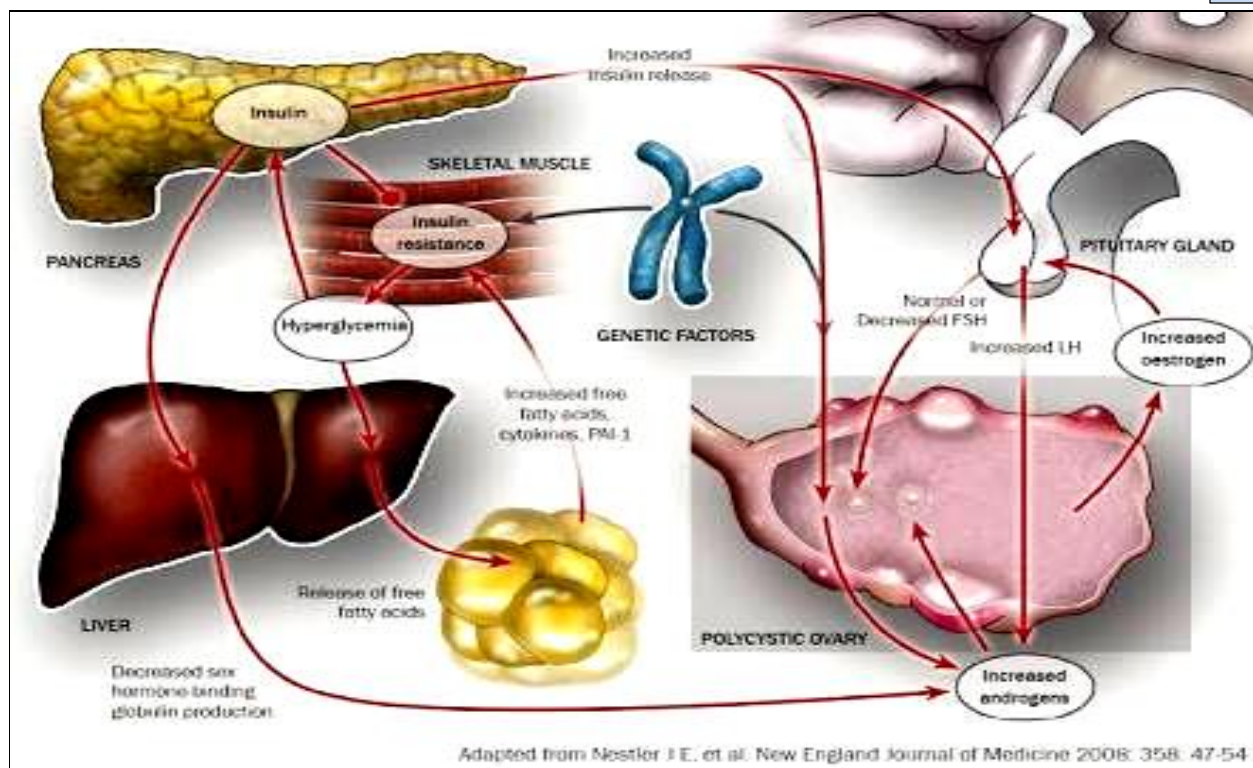
Poly-Cystic Ovary Syndrome (PCOS) is characterized by multiple small ovarian cysts, obesity, hypertension, diabetes, insulin resistance, and Hirsutism. The Study Aims to assess the role of Doctor Of Pharmacy in identification of risk factors in developing poly cystic ovarian syndrome among teenagers and minimizing them by life style modifications through advanced Patient counseling. The Main Objective of the present study is to prevent the following: To prevent the complications of PCOS who are suffering with PCOS in early of their age. To prevent the occurrence of PCOS to early females who are nearer for its occurrence. To minimize the symptoms and to improve the quality of life of females suffering with PCOS. Study Design: It is a observational and interventional study. Study Period: The Present study was conducted for a period of 6 months from January 2nd 2017 to July 31st 2017. Study site : The Present study was conducted in BAHUDHA WOMENS HOSTEL affiliated to Annamacharya college of Pharmacy, Rajampet, Kadapa, Andhra Pradesh, India. In The Present Study Out of total 600 women 530 enrolled to participate in the present study. After the collection of information by PCOS self assessment forms the scoring is given as 271 with scoring > 5 with percentile 51.1320 are with Chance for getting PCOS, 159 with scoring > 10 with percentile 30.01 are with high Chance for getting PCOS, 100 with scoring < 5 with percentile 18.8679 are Unpredictable to PCOS. The present study concludes that Doctor Of Pharmacy is very helpful in assessing the risk factors responsible in developing PCOS and also minimizing them by life style modifications through advanced patient counseling.

INTRODUCTION

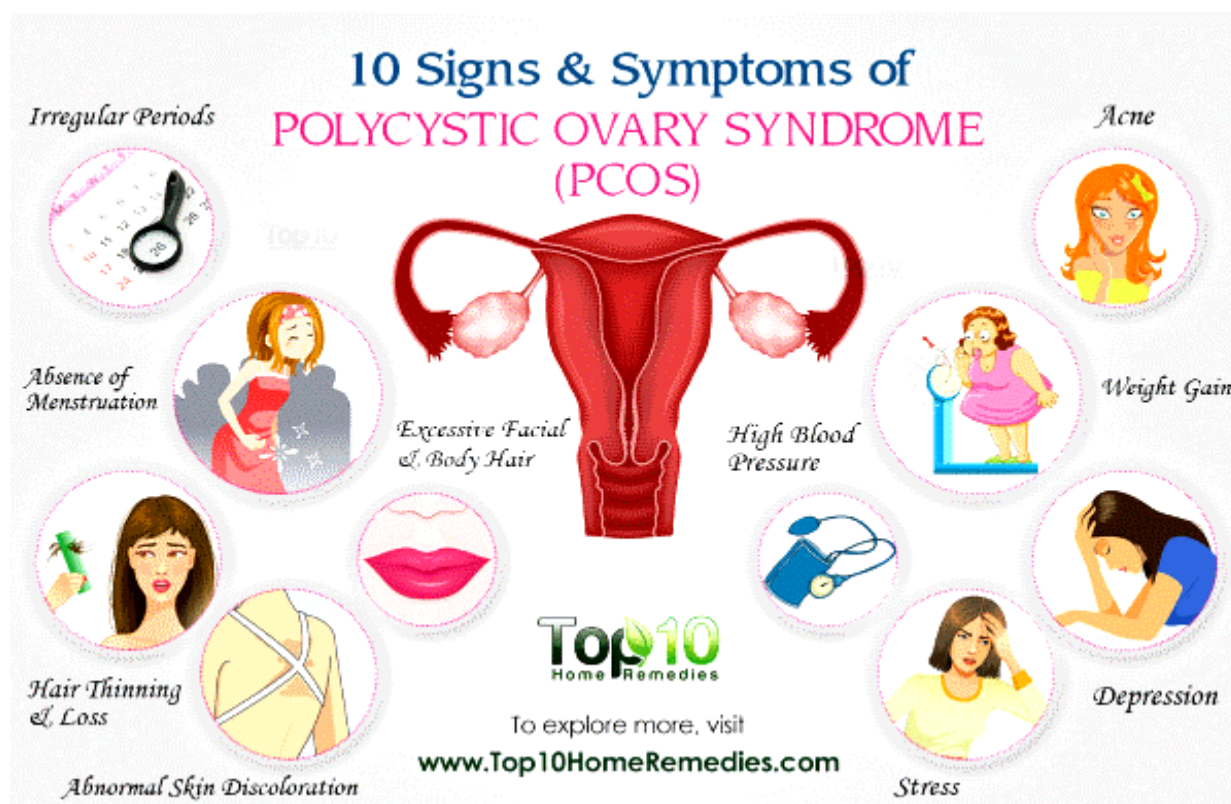
DEFINITION: Poly-Cystic Ovary Syndrome (PCOS) is characterized by multiple small ovarian cysts, obesity, hypertension, diabetes, insulin resistance, and Hirsutism.

SEQUENTIAL DIAGRAMATIC REPRESENTATION ETIO-PATHOPHYSIOLOGY OF PCOS:





DIAGRAMATIC REPRESENTATION OF SIGNS AND SYMPTOMS



COMPLICATIONS

- Complete Infertility or in some cases difficulty to conceive.
- Cardiovascular diseases like hypertension ,atherosclerosis and other heart problems
- Type-2 diabetes mellitus.
- Hirsutism which leads to unusual hair growth on body.
- Hormonal imbalances which leads to endocrine disorders and hyper-androgenism, etc.,,

ROLE OF DOCTOR OF PHARMACY IN MINIMIZING THE RISK FACTORS IN GETTING PCO

Doctor of pharmacy are health care professionals with complete knowledge on both disease/disorder and treatment involved as well as on patient counselling and non pharmacological therapy that is helpful to prevent or reduce the complications of a particular disease/disorder, here in this study as a doctor of pharmacy student I have taken a study to control /to reduce/prevent the complications of PCOS in my hostel where I have been 5 years of my study.

AIM:

The Study Aims to assess the role of Doctor of Pharmacy in identification of risk factors in developing poly cystic ovarian syndrome among teenagers and minimizing them by life style modifications through advanced Patient counseling.

OBJECTIVES:

The Main Objective of the present study is to prevent the following:

- To prevent the complications of PCOS who are suffering with PCOS in early of their age.
- To prevent the occurrence of PCOS to early females who are nearer for its occurrence.
- To minimize the symptoms and to improve the quality of life of females suffering with PCOS.

METHODOLOGY:

Study Design: It is an observational and interventional study.

Study Period: The Present study was conducted for a period of 6 months from January 2nd 2017 to July 31st 2017.

Study site: The Present study was conducted in BAHUDHA WOMENS HOSTEL affiliated to Annamacharya college of Pharmacy, Rajampet, Kadapa, Andhra Pradesh, India.

Sample size: 600 women with age group ranging from 18-24 were selected for this study.

Source of Data: All the required data was collected through risk factors assessment forms.

Inclusion criteria:

Females aging between 18-24 and who are willing to participate in the study. ,(Out of total 600 530 were willing to participate in the present study).

Exclusion criteria:

Females aging between 18-24 and who are not willing to participate in the study,(Out of total 600 70 were not willing to participate in the present study).

PCOS SELF ASSESMENT FORM

SELF TEST: DO YOU HAVE PCOS?

(Poly-Cystic Ovary Syndrome (PCOS) is characterized by multiple small ovarian cysts, obesity, hypertension, diabetes, insulin resistance, and Hirsutism.)

NAME: _____ AGE: _____ OCCUPATION: _____

BODYWEIGHT: _____ HEIGHT: -----

ALREADY HAD PCOS: ☐ YES ☐ NO

QUESTIONARY FORM TO BE FILLED:

- ☐ **YES** ☐ **NO** 1. I crave carbohydrates and sugar.
- ☐ **YES** ☐ **NO** 2. I have had continuous weight gain.
- ☐ **YES** ☐ **NO** 3. I have always had difficulty with losing weight.
- ☐ **YES** ☐ **NO** 4. My waistline is greater than 35 inches.
- ☐ **YES** ☐ **NO** 5. I have or had problems in the past with acne.
- ☐ **YES** ☐ **NO** 6. My periods last longer than 35 days.
- ☐ **YES** ☐ **NO** 7. My periods are unpredictable.
- ☐ **YES** ☐ **NO** 8. My periods last longer than a week.
- ☐ **YES** ☐ **NO** 9. My periods are very heavy or prolonged.
- ☐ **YES** ☐ **NO** 10. I have with excess facial hair.
- ☐ **YES** ☐ **NO** 11. I feel extremely hungry, irritable, sleepy, or fatigued after eating sweets.
- ☐ **YES** ☐ **NO** 12. I have noticed skin color or pigmentation changes.
- ☐ **YES** ☐ **NO** 13. I have unusual amount of hair on my breasts.
- ☐ **YES** ☐ **NO** 14. I have hair growth on my upper thighs.
- ☐ **YES** ☐ **NO** 15. I have pubic hair that grows up my abdomen and around the navel.
- ☐ **YES** ☐ **NO** 16. My acne is worse at different times of my cycle.
- ☐ **YES** ☐ **NO** 17. I use to work/study under extreme stress conditions.

SCORE: > 10 high risk to get PCOS; >5 Chance for getting PCOS

<5 Unpredictable to PCOS.

NOTE: This Questionarrie form is prepared based On WHO Guidelines and Standard Text Books written to assess The Risk Factors Of PCOS.

RESULTS

Table1.1 AGE WISE DISTRIBUTION OF FEMALE POPULATION IN BAHUDHA HOSTEL.

AGE GROUP	NUMBEROF FEMALES	PERCENTAGE
18	95	17.9245
19	89	16.7924
20	87	16.4150
21	60	11.3207
22	40	7.5471
23	70	13.2075
24	89	16.7924
TOTAL=530.		TOTAL=100%

Fig 1.1 DIAGRAMATIC REPRESENTATION OF AGE WISE DISTRIBUTION OF FEMALE POPULATION IN BAHUDHA HOSTEL.

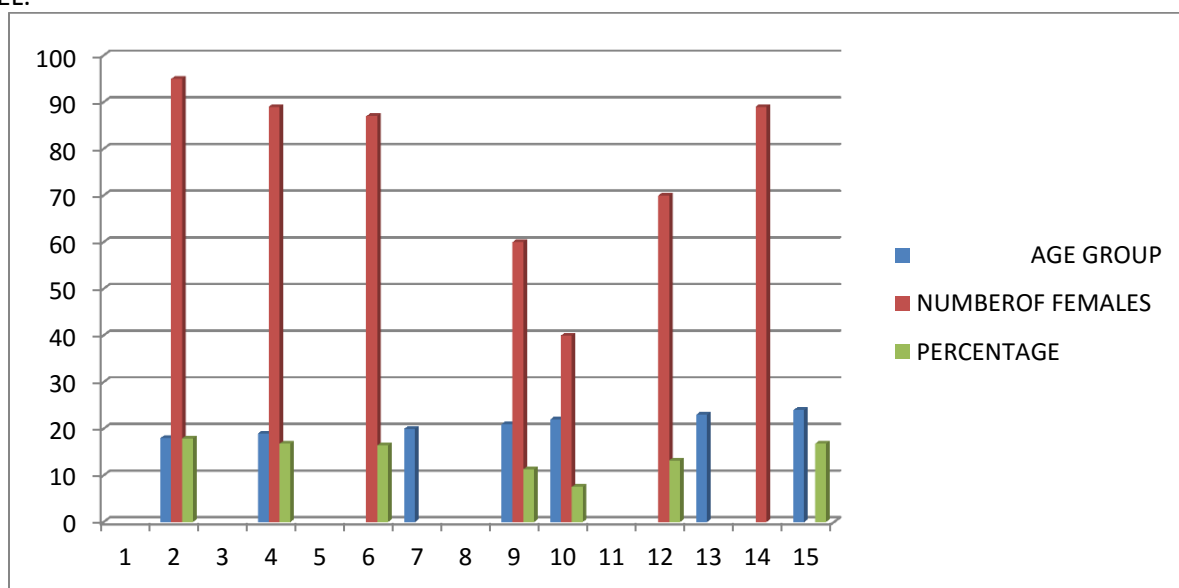
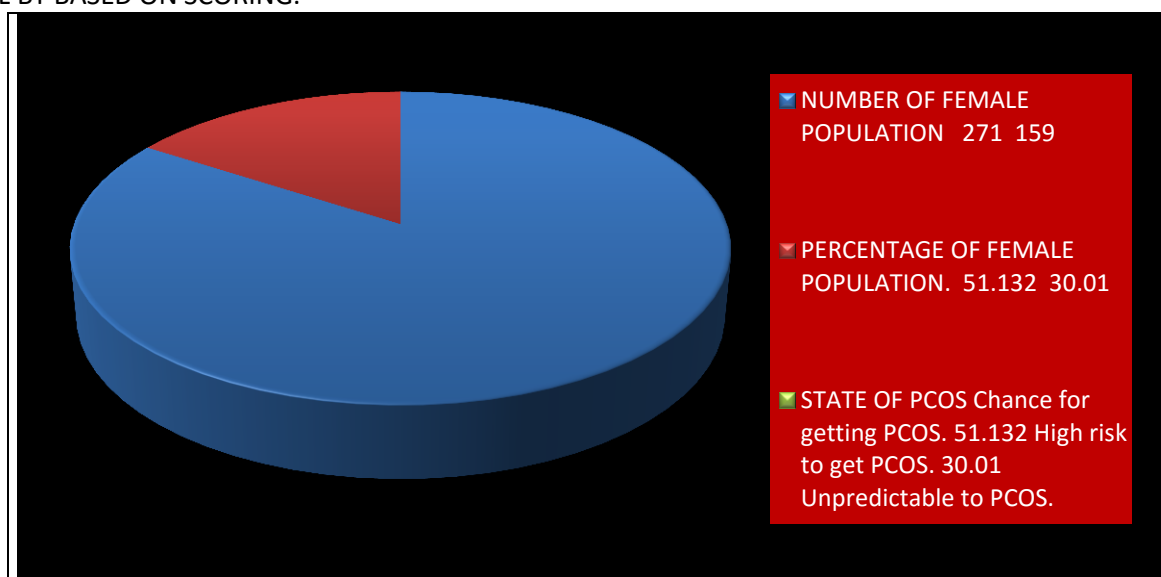


Table1. ANALYSIS OF PCOS STATE IN FEMALE POPULATION OF BAHUDHA HOSTEL BY BASED ON SCORING

NUMBER OF FEMALE POPULATION	SCORING	PERCENTAGE OF FEMALE POPULATION	STATE OF PCOS
271	≥ 5	51.1320	Chance for getting PCOS.
159	≥ 10	30.01	High risk to get PCOS.
100	< 5	18.8679	Unpredictable to PCOS.
TOTAL=530			

Fig 1.2 DIAGRAMATIC REPRESENTATION OF ANALYSIS OF PCOS STATE IN FEMALE POPULATION OF BAHUDHA HOSTEL BY BASED ON SCORING.



PATIENT COUNSELLING TIPS ALONG WITH LIFE STYLE MODIFICATIONS PROVIDED BY DOCTOR OF PHARMACY TO FEMALE POPULATION WHO ARE AT CHANCE AND RISK OF GETTING PCOS

- Every women should Perform self test every month in order to assess the state of PCO occurrence.
- Always reduce the intake of carbohydrate which can help to regulate menstrual cycles in regular manner.
- Always reduce the intake of fats with very low density lipoproteins that can helps to weight gain ultimately leads to insulin resistance.
- Always perform regular exercise& yoga to minimize the complications of PCO.
- Always should maintain proper BMI (body mass index).
- Use CARICA PAPAYA before one week of your menstruation date that can help to stimulate the growth of female Harmones like Oestrogen that will help to maintain proper menstruation cycles.
- Diet rich in iron like dates and fibre rich contents along with fruits and fresh vegetables must be taken .
- A balanced diet must be taken by based on body weight for example plate model meal.
- If one found if the complications are heavy they should immediately consult a Gynaecologist.

HOW DOCTOR OF PHARMACY IS HELPFUL IN ASSESING PCO?

Doctor of pharmacy are health care professionals with deep knowledge in assesing the risk factors, disease status, complications, drug selection, patient counseling. Here in this study a separate self assessment form is produced by doctor of pharmacy professionals as per standard guidelines of W.H.O and other international authorized guidelines, which is helpful for individuals to asses PCO on their own.

DISCUSSION

In The Present Study Out of total 600 women 530 enrolled to participate in the present study. Among them 95 were under the age group of 18 with percentile 17.9245, 89 were under the age group of 19 with percentile 16.7924, 87 were under the age group of 20 with percentile 16.4150, 60 were under the age group of 21 with percentile 11.3207, and 40 were under the age group of 22 with percentile 7.5471, 70 were under the age group of 23 with percentile 13.2075, 89 were under the age group of 24 with percentile 16.7924. After the collection of information by PCOS self assessment forms the scoring is given as **271 with scoring ≥ 5** with

percentile **51.1320** are with **Chance for getting PCOS, 159** with scoring ≥ 10 with percentile **30.01** are with **high Chance for getting PCOS, 100** with scoring ≤ 5 with percentile **18.8679** are **Unpredictable to PCOS**.

CONCLUSION

The present study concludes that PCOS occurrence is more in teenager females which can serve as a major hurdle for their healthy life which ultimately leads to infertility as it is due to major risk factors like changes in the diet, stressful life, and unbalanced improper and unhealthy life style in females, hence the present study concludes that Doctor Of Pharmacy is very helpful in assessing the risk factors responsible in developing PCOS and also minimizing them by life style modifications through advanced patient counseling.

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