

# Effectiveness of Health Care Package on Poly Cystic Ovarian Syndrome

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**Abstract:** Polycystic ovary syndrome (PCOS) is a complex, multifaceted, heterogeneous disorder that affects approximately 5 to 10% of women of reproductive age. Knowledge of lifestyle and dietary changes among patients of PCOS is an important aspect of the disease management. An experimental study was conducted with objective to evaluate the effectiveness of Health Care Package on PCOS and its management in terms of knowledge and practices of women with PCOS in Safdarjung Hospital, New Delhi. A sample of 60 women with PCOS was selected by purposive sampling and they were randomly assigned to experimental and control group. A structured knowledge interview schedule and self expressed practice rating scale (Hindi) were administered to both experimental and control groups in order to assess the knowledge and practices of women with PCOS regarding PCOS and its Management before and after administration of a health care package on PCOS. Health Care Package was found to be effective in improving the post-test knowledge and practice scores of experimental group with the 't' value of 12.22 and 9.47 respectively for df 58 at 0.05 level of significance. Knowledge and practice scores were found to be significantly associated with education status. There was a significant positive relation between post-test knowledge and practice scores of experimental group.

**Keywords:** Poly Cystic Ovarian Syndrome, Knowledge, Practice, Health Care Package

## 1. Introduction

Poly cystic Ovarian Syndrome (PCOS) was originally described in 1935 by Stein and Leventhal as a syndrome manifested by amenorrhoea, hirsutism and obesity associated with enlarged polycystic ovaries. This heterogeneous disorder is characterized by excessive androgen production by the ovaries mainly. PCOS is a multifactorial and polygenic condition. It is characterized by three classic symptoms: 1) Irregular menstrual periods (80%) either oligomenorrhoea or amenorrhoea 2) Masculinization causing excessive hair growth and acne (50-70%) 3) Obesity. Additionally, because the woman does not usually ovulate, she is often infertile (75%).[1]

Women are the building stones of a society. A woman owns the privilege of giving birth, raising up a family and thus creating the basic unit of society. The unhealthy food habits and lack of exercise lead to many adverse effects on the body of women during her reproductive phase. Poly Cystic Ovarian Syndrome is one such disease which puts question mark on the womanhood of a woman by taking from her the right of motherhood.

Polycystic ovary syndrome (PCOS) is the most common endocrine disorder affecting between 6% and 8% of women in reproductive age [2]. It is associated not only with reproductive and cosmetic sequelae, but also with significantly increased risk of metabolic dysfunction including insulin resistance with consequent compensatory hyperinsulinemia, dyslipidemia, systemic inflammation, increased oxidative stress, and endothelial dysfunction [3,4]. In the long-term, women with PCOS may develop type 2 diabetes mellitus, hypertension and atherosclerosis; ultimately, they are more likely to suffer from cardiovascular and cerebrovascular diseases [5-7]. Only a few of the women diagnosed with PCOS had any information about PCOS. Many of the women did not know where to look for information. The findings of the study

revealed the lack of knowledge about PCOS among women with PCOS.[8]

## 2. Objectives

- 1) To evaluate the effectiveness of Health Care Package on PCOS and its management in terms of Knowledge and Practices of women with PCOS
- 2) To determine the relationship between knowledge and practice of women with Poly Cystic Ovarian Syndrome after administration of health care package.
- 3) To seek association of knowledge and practices of women with selected factors- a) age & b) education status.

## 3. Materials and Methods

The study was conducted from December 2013 to January 2014 at Safdarjung Hospital, New Delhi, after obtaining ethical clearance from the research committee of RAK College of Nursing and seeking administrative approval from VMMC & Safdarjung Hospital. The sample included 60 women with PCOS who could read and write hindi and were willing to participate in the study. They were randomly assigned to experimental (30 samples) and control group (30 sample), even number participant was assigned to experimental group and every odd number was included in control group.

### Tools

- 1) Structured Knowledge Interview Schedule - To assess the knowledge regarding PCOS and its management
- 2) Self- Expressed Practice Rating Scale- To assess the practices regarding PCOS and its management

### Health Care Package

Health Care Package in this study means a package which was developed by the researcher after in depth review of literature. It included:

- 1) Flash Cards on Causes of PCOS
- 2) Self- Evaluation Checklist – Daily Checklist for the patients to improve practices to manage PCOS
- 3) Leaflet - A Leaflet providing information on Dos and Don'ts of PCOS
- 4) Information booklet- A booklet providing information on PCOS, its causes, clinical features , complications, and management including lifestyle modification, medical as well as surgical management.

**Data Collection**

- Day 1 (Pre-test) : After explaining the purpose of the study and taking the informed consent from the samples, the investigator administered the structured knowledge interview schedule and self-expressed practice rating scale (Hindi ) to each subject in both the groups to assess the existing knowledge and practices of women with PCOS regarding PCOS and its Management.
- Thereafter the health care package was administered to the samples in the experimental group.
- Day 7 (Post-test) : A post-test was administered to all the samples to determine the gain in knowledge and practice of the experimental group to test the effectiveness of the health care package.
- The data obtained was tabulated and analyzed in terms of the objectives of the study using descriptive and inferential statistics.

**4. Observations**

**Table 1:** Mean, Mean Difference, Standard Deviation Difference, Standard Error of Mean Difference & "t" Value of the Pre- Test & Post-Test Knowledge Scores of the Experimental Group, N=30

Test	Mean Score	Mean Difference (M <sub>D</sub> )	Standard Deviation Difference (SD <sub>D</sub> )	Standard Error of Mean Difference (SE <sub>MD</sub> )	"t" Value
Pre-test	12.37	14.33	3.25	0.59	24.14 <sup>S</sup>
Post-test	26.7				

**df (29) "t" = 2.04 at 0.05 level of significance**  
**S= Significant at 0.05 level**

The data given in Table-1 shows that the mean post-test knowledge scores (26.7) of the experimental group of women with PCOS was higher than the mean pre-test knowledge scores (12.37) with a mean difference of 14.33, which was found to be statistically significant as evident from the "t" value of 24.14 for df 29 at 0.05 level of significance. Hence, the health care package was effective in improving the knowledge of women with PCOS regarding PCOS and its management.

**Table 2:** Mean, Mean Difference, Standard Deviation, Standard Error Of Mean Difference And "t" Value Of Post -Test Knowledge Scores Of Experimental And Control Group, N= 60

Group	Mean Score	Mean Difference (M <sub>D</sub> )	Standard Deviation (SD)	Standard Error of Mean Difference (SE <sub>MD</sub> )	"t" Value
<b>Experimental Group</b> (n = 30 )	26.7	13.2	4.18	1.08	12.22 <sup>S</sup>
<b>Control Group</b> (n = 30 )	13.5				

**S = Significant at 0.05 level**                      **df (58) "t" = 2.00 at 0.05 level of significance**

The data given in Table 2 shows that the mean post-test knowledge score of experimental group was 26.7 and mean post-test knowledge score of control group was 13.5 . The mean difference is 13.2 . The obtained "t" value 12.22 for df 58 was found to be statistically significant at 0.05 level of significance.

This shows that the experimental group's knowledge is improved significantly after administration of health care package.

**Table 3:** Mean, Mean Difference, Standard Deviation, Standard Error of Mean Difference &"t" Value of The Pre- Test & Post-Test Practice Scores of the Experimental Group, N=30

Test	Mean Score	Mean Difference (M <sub>D</sub> )	Standard Deviation Difference (SD <sub>D</sub> )	Standard Error of Mean Difference (SE <sub>MD</sub> )	"t" Value
Pre-test	55.96	32.07	9.02	1.65	19.46 <sup>S</sup>
Post-test	88.03				

**df (29) "t" = 2.04 at 0.05 level of significance**                      **S = Significant at 0.05 level**

The data given in Table-3 shows that the mean post-test practice scores (88.03) of the experimental group of women with PCOS was higher than the mean pre-test practice scores (55.96) with a mean difference of 32.07 , which was found to be statistically significant as evident from the "t" value of 19.46 for df 29 at 0.05 level of significance. Hence, the health care package was effective for improving the practice of women with PCOS regarding PCOS and its management

**Table 4:** Mean, Mean Difference, Standard Deviation, Standard Error f Mean Difference And "t" Value Of Post -Test Practice Scores of Experimental & Control Group. N= 60

Group	Mean Score	Mean Difference (M <sub>D</sub> )	Standard Deviation (SD)	Standard Error of Mean Difference (SE <sub>MD</sub> )	"t" Value
<b>Post-test Experimental Group</b> (n = 30 )	88.03	25.6	10.45	2.70	9.47 <sup>S</sup>
<b>Control Group</b> (n = 30 )	62.43				

**S = Significant at 0.05 level**                      **df (58) "t" = 2.00 at 0.05 level of significance**

The data given in Table 4 shows that the mean post-test practice score of experimental group was 88.03 and mean post-test practice score of control group was 62.43 . The mean difference is 25.6. To test the significance of difference between post-test practice scores of experimental and control group "t" value was computed . The obtained "t" value 9.47 for df 58 was found to be statistically significant at 0.05 level of significance.

This shows that the experimental group's practices are improved after administration of health care package.

**Table 5: Mean Knowledge, Mean Practice Scores & Pearson Product of Correlation between Knowledge & Practice Score of Experimental Group, N= 30**

Variables	Mean	'r'
Knowledge	26.7	<b>0.4072<sub>s</sub></b>
Practice	88.03	

r' (28) = 0.361, p > 0.05                      S= Significant at 0.05 level of significance.

Table 5 shows that there is significant relationship between knowledge with mean score 26.7 and practice with mean score 88.03 with pearson product of correlation "r" 0.407 which is significant at 0.05 level of significance. The findings reveal that women with higher knowledge perform better practices to manage PCOS

The association between Knowledge scores and the Education of women with PCOS was found to be significant as evident from  $\chi^2$  value of 13.587. The subjects with higher education status were found to have better knowledge scores as compared to those with lower education status.

The association between Practice scores and the Education of women with PCOS was found to be significant as evident from  $\chi^2$  value of 9.650. The subjects with higher education status were found to have better practice scores as compared to those with lower education status.

## 5. Discussion

The present study found that the health care package was effective in improving the knowledge and practices of women with PCOS. After imparting information the knowledge and practice of women showed significant improvement as revealed by their post-test scores. These findings are consistent with the findings of study by Pramila D'Souza , which showed that the post-test scores of adolescent girls were significantly higher than the pre-test scores after administration of Planned Teaching Program on PCOS.<sup>9</sup> Another study conducted by Hadayat A. Amasha also show the effectiveness of Education Program regarding PCOS.<sup>10</sup>

## 6. Conclusion

Reproductive Health of women is of prime concern for every nation to lay down the foundation of a healthy society. Poly Cystic Ovarian Syndrome is the most common endocrine disorder in the females of reproductive age. The

health care package on PCOS and its management was found to be significantly effective in improving the knowledge and practices of women with PCOS. There is need of comprehensive information and education among females of reproductive age group about PCOS and early detection of PCOS. Nurses working in Gynecology department (OPD & Ward) should take up the responsibility of educating and motivating the females about the lifestyle modifications to manage PCOS.

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