



EFFECT OF YOGA PRACTICES ON SELECTED PCOS SYMPTOMS RELATED VARIABLES AMONG WOMEN STUDENTS WITH POLYCYSTIC OVARY SYNDROME

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ABSTRACT

The purpose of the study was to find out the effect of yoga practices on selected PCOS symptoms related variables among women students with polycystic ovary syndrome. To achieve the purpose of the study, thirty (30) women students with polycystic ovary syndrome were selected randomly 18 to 25 years of age from departments and affiliated colleges of Bharathiar University, Coimbatore, Tamil Nadu. The selected subjects were divided into two equal groups namely experimental and control group of 15 subjects each. The training period was limited to twelve weeks and for five days per week. The yoga practices were selected as independent variables and Alopecia (Slap hair loss), Hirsutism-Excessive hair growth and Menstrual Irregularities were selected as dependent variables and it was measured by Savin Scale for androgenic alopecia 1994, Modified Ferriman–Gallway Scale 1961 and Rhinessa women Questionnaire respectively. All the subjects were tested two days before and immediately after the experimental period on the selected dependent variables. The obtained data from the experimental group and control group before and after the experimental period were statistically analyzed with dependent ‘t’-test to find out significant improvements. The level of significance was fixed at 0.05 level confidence for all the cases. Significant improvement was found on Alopecia (Slap hair loss), Hirsutism-Excessive hair growth and Menstrual Irregularities of experimental group due to the effect of yoga practices when compared to the control group.

KEYWORDS: Alopecia (Slap hair loss), Hirsutism-Excessive hair growth and Menstrual Irregularities.

INTRODUCTION

Polycystic ovarian syndrome (PCOS) is a common disorder seen in women at their reproductive age with a prevalence rate of 4 to 12%. Diagnosis of hyperandrogenism or chronic anovulation without any adrenal or pituitary conditions can be called as PCOS. The condition was first described by Stein and Leventhal in 1935, which was a combination of oligo-amenorrhea and polycystic ovaries often associated with hirsutism, obesity or acne. Thus the key findings in subjects with PCOS are hyperandrogenism and chronic anovulation. Clinical features also include acanthosis nigricans and male pattern alopecia.

The diagnostic criteria put forward by Rotterdam workshop (2003) consider two of the three following criteria to be present; chronic anovulation or oligomenorrhea, polycystic ovarian morphology, and hyperandrogenism. Hyperinsulinaemia due to insulin resistance leading to the production of excess ovarian androgen is considered to be one of the aetiology of PCOS. This may predispose to non-insulin dependent diabetes as well as cardiovascular diseases in their later life.

YOGA PRACTICES

The world yoga derived from the Sanskrit root ‘yuj’ meaning to bind, join, attach and yoke, to direct and concentrate one’s attention on, to use and apply. It also means union or communion. Yoga was collated, co-ordinated and systematized by patanjali in his classical work, the yoga sutras, which consists of 185 terse aphorisms (Iyengar, 2008).

The most important aim of our lives should be to maintain good health. Many people take their health for granted and abuse their bodies with a sedentary life style, bad diets, medications and high stress factors. Every person, due to genetic weaknesses, is susceptible to certain ailments that if not prevented can lead to serious illnesses. When energy is depleted in the body the organs become weak and



they cannot function properly. The natural equilibrium will be disturbed and a disorder can develop. Genetic factors will dictate which particular disorder may develop and which organ might be affected. Some people may be prone to a certain condition such as diabetes, cancer, peptic ulcers and heart disease. Yoga acts preventive measures to disease by reducing stress level, keeping the internal organs toned and healthy and maintaining a balanced equilibrium between the physical, mental and spiritual level. The emphasis is to unite the system with a combination of breathing techniques, gentle exercise and mind control. This produces a tranquility that penetrates deep into the mind and soul. It improves the health of the person on all levels (VimalaLalvani, 2003).

METHODOLOGY

For the purpose of this study, altogether thirty (30) women students with polycystic ovary syndrome were chosen on random basis from departments and affiliated colleges of Bharathiar University, Coimbatore, Tamil Nadu. Their age group ranges from 18 to 25 years. They were divided into two groups of 15. The Experimental group would undergo yoga practices. The second group Control group. Pre – test and post –test would be conducted. Treatment would be given for twelve weeks. It would be find out finally the effect of yoga practices on the polycystic ovary syndrome in scientific methods.

The selected tests were measured by following units for testing:

Criterion Variables	Test Items	Unit Measurements
Alopecia (slap hair loss)	Savin Scale for androgenic alopecia 1994	In points
Hirsutism(excessive hair growth)	Modified Ferriman –Gallway Scale 1961	In points
Menstrual Irregularities	Rhinessa women Questionnaire	In points

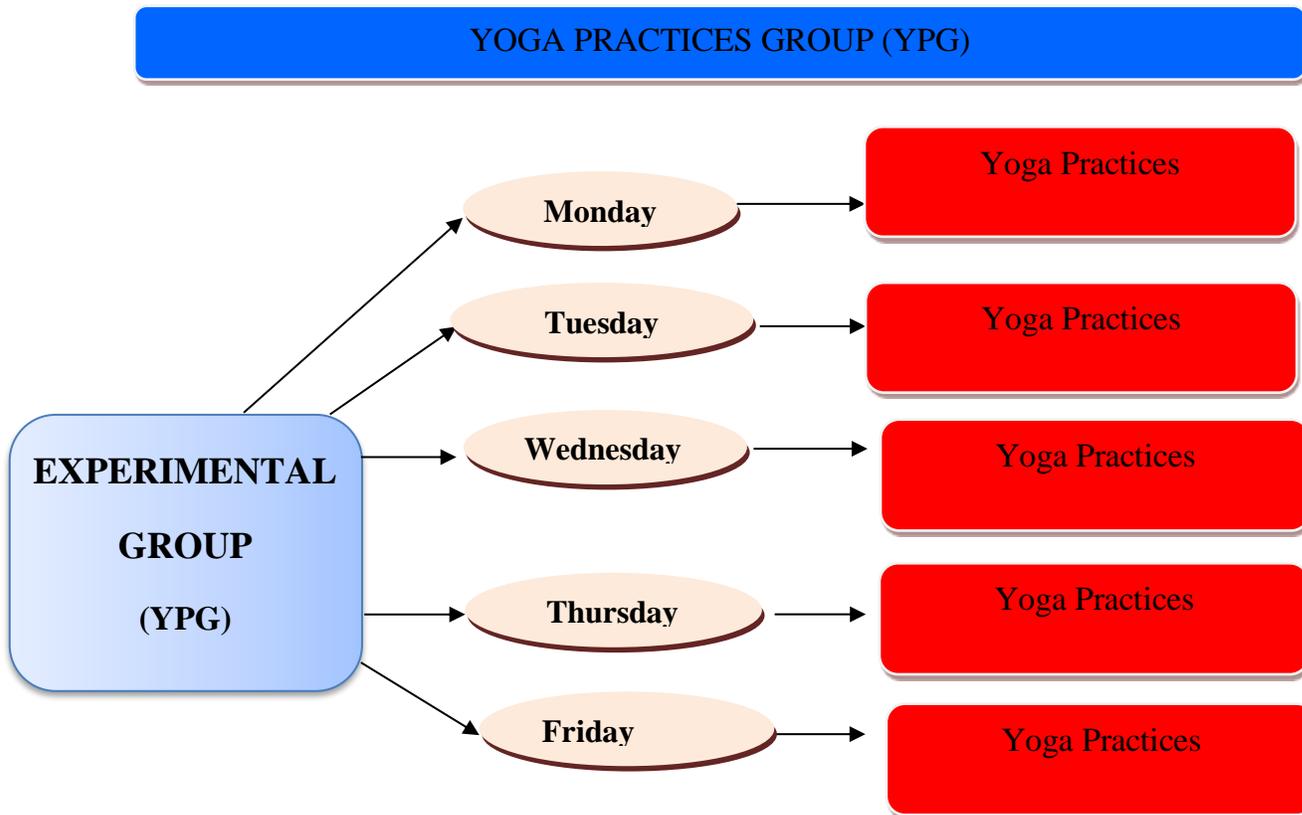
TRAINING PROGRAMME

The following schedule of training was given for the CrossFit training group.

Group	Design of the Training
Experimental Group	Yoga Practices
Control Group	Did not do any Specific Training
Training Duration	60 Minutes
Training Session	5 Days a week
Total Length of Training	Twelve weeks



CHART-I
EXPERIMENTAL TREATMENT ADOPTED FOR EXPERIMENTAL GROUP



EXPERIMENTAL DESIGN

The experimental group was given Yoga Practices after taking an initial test. After the initial test selected Yoga Practices were given for twelve weeks in all days except Saturday and Sunday. The time of practice was from 6. 00A.M to 7.00 A.M. The control group were not participating in any of the special training programme. However, they were allowed to participate in their regular education classes in the college as per their curriculum.

STATISTICAL TECHNIQUE

The achieved data since the experimental group and control group previously and subsequently the experimental dated were statistically evaluated with dependent t-test to discovery obtainable significant development. The level of significance was secure at 0.05 level of confidence for all the cases.

RESULTS AND DISCUSSIONS

The effect of independent variables on each criterion variables was considered by dependent ‘t’ – test on the data achieved for Alopecia (Slap hair loss), Hirsutism-Excessive hair growth and Menstrual Irregularities. The pre-test and post- test means of experimental group and control group have been analyzed and existing in Table II & III.



TABLE – II

MEAN AND DEPENDANT ‘t’ – TEST FOR THE PRE AND POST TESTS ON ALOPECIA (SLAP HAIR LOSS), HIRSUTISM-EXCESSIVE HAIR GROWTH AND MENSTRUAL IRREGULARITIES OF EXPERIMENTAL GROUP

S.No	Variables	Pre test Mean± SD	Post test Mean± SD	SE	‘t’ – ratio
1.	Alopecia(Slap hair loss)(<i>In Points</i>)	5.73±.88	4.67±.82	.067	16*
2.	Hirsutism-Excessive hair growth (<i>In Points</i>)	27.80±4.92	26.53±4.72	.19	6.95*
3.	Menstrual Irregularities (<i>In Points</i>)	10.87±1.30	9.80±1.32	.067	15.01*

*Significance at 0.05 level of confidence (2.14)

TABLE – III

MEAN AND DEPENDANT ‘t’ – TEST FOR THE PRE AND POST TESTS ON ALOPECIA (SLAP HAIR LOSS), HIRSUTISM-EXCESSIVE HAIR GROWTH AND MENSTRUAL IRREGULARITIES OF CONTROL GROUP

S.No	Variables	Pre test Mean± SD	Post test Mean ± SD	SE	‘t’ – ratio
1.	Alopecia(Slap hair loss)(<i>In Points</i>)	5.80±1.15	5.73±1.10	.067	12
2.	Hirsutism-Excessive hair growth (<i>In Points</i>)	26.67±4.72	26.53±4.51	.13	3.25
3.	Menstrual Irregularities (<i>In Points</i>)	10.93±1.49	10.80±1.66	.17	9.09

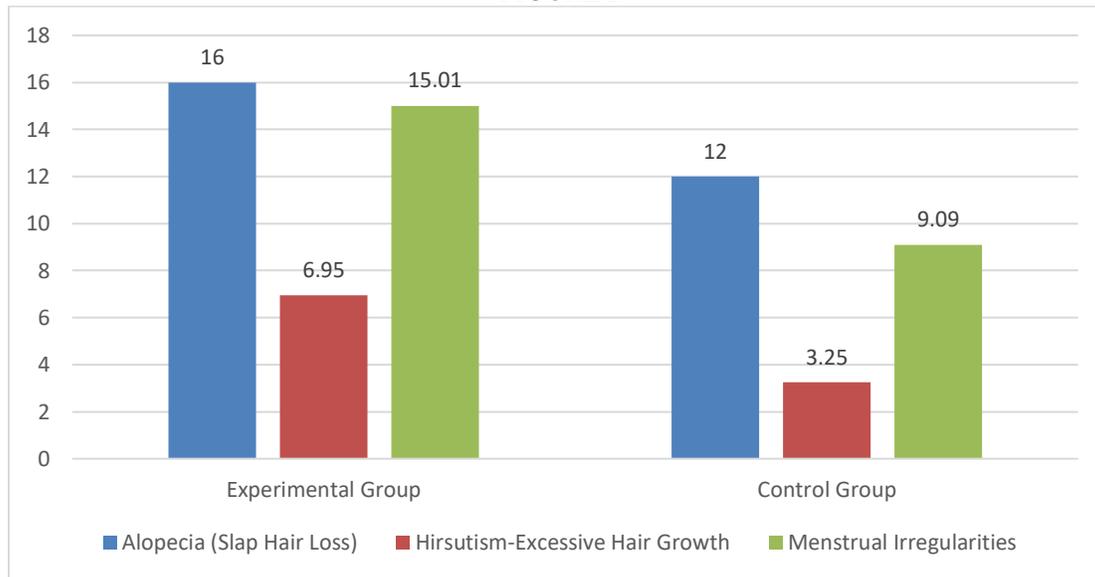
*Significance at 0.05 level of confidence (2.14)

The table II and III, shows that, the obtained ‘t’-ratio between the pre and post-test means of experimental group were 16.00, 6.95 and 15.01 and control group were 12,3.25,9.09 respectively. The table values required for significant difference with df 1, 29 at 0.05 level of confidence. Since the obtained ‘t’ – ratio value of experimental and control group on Alopecia (Slap Hair Loss), Hirsutism-Excessive Hair Growth And Menstrual Irregularities were greater than the table value 2.14,it was concluded that Yoga Practices had significantly improved Alopecia (Slap Hair Loss), Hirsutism-Excessive Hair Growth and Menstrual Irregularities of experimental group.

The pre and post- test mean value of experimental and control group on Alopecia (Slap Hair Loss), Hirsutism-Excessive Hair Growth and Menstrual Irregularities were graphically represented in the figure I.



FIGURE I



DISCUSSION ON FINDINGS

The finding of the study reveals that the followed by Yoga Practices group cause significant improvement in their PCOS symptoms related variables. In the view of control group there was no significant improvement in their PCOS symptoms related variables. The findings of the study they stated that Yoga Practices on exercise developed PCOS symptoms related variables.

CONCLUSIONS

It was concluded that improvement of Alopecia (Slap hair loss), Hirsutism-Excessive hair growth and Menstrual Irregularities was found significantly on experimental group due to the effect of PCOS symptoms related variables followed by Yoga Practices when compared to the control group.

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