

Effect Of Yogic Practices With And Without Diet Modifications On Stress Among Adult Women With Oligomenorrhea

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ABSTRACT

Menstrual disorder includes irregular periods or dysmenorrhoea (painful periods), anything that interferes with the normal menstrual cycle, causing pain, unusually heavy or light bleeding, or missed periods. Typically, a woman of childbearing age should menstruate every 28 days or so unless she's pregnant or moving into menopause. But numerous things can go wrong with the normal menstrual cycle, some the result of physical causes, others emotional. These include amenorrhea, or the cessation of menstruation, menorrhagia, or heavy bleeding, and dysmenorrhea, or severe menstrual cramps. Nearly every woman will experience one or more of these menstrual irregularities at some time in her life. The study was undertaken with the aim to observe the effect of yogic practices with and without diet modifications on selected psychological variable as stress among Adult women with oligomenorrhea. For this study totally 45 female students were selected as subjects from Sholinganallur, Chennai. Their age ranged between 25 to 35 years. They were divided into three groups. Experimental group I –yogic practices with diet modifications, Experimental group II- yogic practices without diet modifications and group III –control group (no intervention). The data was collected from three groups prior to training and after 12 weeks of yogic practices with and without diet modifications. Analysis of covariance was used to find out the significant difference between the three groups. The level of significance at 0.05%. The results proved that the regular yogic practices and diet modifications helped to significantly reduce the psychological variable stress.

Keywords: Yogic Practices, Diet Modifications, Stress.

INTRODUCTION

Oligomenorrhea (or oligomenorrhoea) is infrequent menstruation. More strictly, it is menstrual periods occurring at intervals of greater than 35 days, with only four to nine periods in a year. In the modern era, the origin of yoga is not usually given much importance. While 'yoga' has now become a veritable household word, knowledge of its roots escapes most people, even many of those practising it with regularity. "Historically yoga is more than a particular teaching. Yoga, a way of life, a culture and a lifestyle which encompassed not just techniques, practices or ideas, but also eating habits, bathing habits, prayer, social interaction, and work. Yoga included a vast body of 'attitudes toward being', an ingrained sense of morality and ethic and it is the bedrock of the personal – social – cosmic order which developed in that part of the earth known as India.

Therefore it is in the ancient Samskrithi (culture) of Bharata that origin of yoga is to be found."- Smt. Meenakshi Devi Bhavanani, "Returning to the Roots; Classical Yoga" Yoga is one of the six orthodox systems of Indian philosophy. It is coordinated and systematized by Patanjali in his classical work, the Yoga Sutras, which consists of 195

terse aphorisms in which it is stated that yoga is a state where all activities of the mind are channelized in one direction or the mind is free from distractions (B.K.S. Iyengar,).

A balanced diet comprising of diverse and healthy foods is key to promoting good health. After all, we are what we eat - Research continues to prove that eating healthy food promotes good health and unhealthy food habits lead to a diseased body. Foods contain vital nutrients that aid our body's metabolic function. However, a lack of consumption of these nutrients or feeding upon the wrong kinds of food leads to an accumulation of toxins within the body, resulting in chronic diseases in the long run. Whatever we eat or drink each day. It includes normal diet, diet in groups or may be modified and used for ill persons as a part of diet therapy (Therapeutic diet). Organic foods are strictly regulated by government agencies. As a result you can be sure that when you buy organic you are buying food that has: No nasty chemical additives, No pesticides or insecticides, No genetically modified (GM) ingredients or additives, Higher nutrient levels, including vitamin C and important minerals such as calcium, zinc, magnesium. Diet modifications recommended intake of more greens like moringa leaves, organic vegetable and fruits like pomegranates, vegetable soups, sprouts, nuts, flax seeds, ragi, etc.

PURPOSE OF THE STUDY

The present study was designed to find out the effect of yogic practices with and without diet modifications on selected psychological variable as stress among Adult women with oligomenorrhea.

HYPOTHESES

1. It was hypothesized that there would be significant differences on selected psychological variable stress among Adult women with oligomenorrhea due to yogic practices with and without diet modifications groups than the control group.
2. It was hypothesized that there would be significant differences on selected psychological variable stress among Adult women with oligomenorrhea due to yogic practices with diet modifications group than the yogic practices without diet modifications group.

REVIEW OF RELATED LITERATURE

Nidhi, R., Padmalatha, V., Nagarathna, R., and Ram, A. (2012). Effect of holistic yoga program on anxiety symptoms in adolescent girls with polycystic ovarian syndrome: A randomized control trial. International Journal of Yoga, The recruitment was carried out between December 2009 and January 2011. Of 986 girls who agreed for clinical examination, 154 girls with oligomenorrhea and/or hirsutism (as per the above said definitions) were asked to come for ultrasound and hormonal investigations. After the laboratory evaluations, 90 girls who satisfied Rotterdam criteria of PCOS were randomized into two groups. Group I was given yoga practise and Group II was given physical exercise. Both of the team were given 12 weeks of training. Mann – Whitney U test showed twelve weeks of a holistic yoga program in adolescents with PCOS is significantly better than physical exercise program in reducing anxiety symptoms.

Nidhi, R., Padmalatha, V., Nagarathna, R., and Ram, A. (2012). Effect of a yoga program on glucose metabolism and blood lipid levels in adolescent girls with polycystic ovary syndrome. International Journal of Gynaecology and Obstetric, A prospective, randomized, interventional controlled trial recruited 90 adolescents aged between 15 and 18 years who met the Rotterdam criteria for PCOS. A yoga group practiced suryanamaskara, asanas, pranayama, and meditation 1 hour per day each day for 12 weeks

while another group practiced conventional physical exercises. The Mann-Whitney U test was used to compare score changes between the 2 groups. The changes in fasting insulin, fasting blood glucose, and homeostasis model assessment of insulin resistance were significantly different in the 2 groups ($P < 0.05$). Except for high-density lipoprotein cholesterol, the changes in blood lipid values were also significantly different ($P < 0.05$). The changes in body mass index, waist circumference, hip circumference, and waist-to-hip ratio, however, were not significantly different ($P > 0.05$). Yoga was found to be more effective than conventional physical exercises in improving glucose, lipid, and insulin values, including insulin resistance values, in adolescent girls with PCOS independent of anthropometric changes.

METHODOLOGY

For the purpose of the study, 45 female subjects with Adult women with oligomenorrhea from Sholinganallur, Chennai aged between 25 to 35 years were selected.. They were equally divided into three groups: experimental group I (yogic practices with diet modifications), Experimental group II (yogic practices without diet modifications) and control group (no intervention). The experimental group I was involved in yogic practices with diet modifications for the duration of twelve weeks, experimental group II was involved yogic practices without diet modifications. The control group was in active rest during the period of the study. This study employed the experimental random group design, with yogic practices with and without diet modifications as the independent variable and stress as the dependent variable. Yogic practices such as prayer, loosening exercises, Suryanamaskar, Asanas, Pranayama, meditation and relaxation were given to the experimental groups for the period of twelve weeks. The training scheduling comprises of six days per week for the maximum of one hour for twelve weeks. The data were collected before training as pre-test from three groups. After twelve weeks of yogic practices, data were again collected from all the experimental groups and control group. The equipment used to measure the level of stress through standard questionnaire Dr. Latha Sathish's Questionnaire designed by Dr. Latha Sathish's. Analysis of covariance (ANCOVA) was used to find out the significant differences among the groups. The level of significance was fixed at 0.05%.

RESULT AND DISCUSSION

Stress was measured through standard questionnaire, Goldberg Stress Questionnaire designed by Dr. Latha Sathish's.

RESULTS

TABLE I
COMPUTATION OF ANALYSIS OF COVARIANCE OF THE TWO
EXPERIMENTAL GROUPS AND CONTROL GROUP ON STRESS

Test	Group A	Group B	Control group	Source of Variance	Sum of Squares	Degrees of Freedom	Mean Squares	Obtained F ratio
Pre Test	107.13	112.07	108.53	B	193.91	2	96.956	1.18
				W	3464.40	42	82.49	
Post Test	66.66	81.87	103.67	B	10376.40	2	5188.20	40.22*
				W	5418.40	42	129.01	

Adjusted Post Test	66.92	81.53	103.75	B	10306.10	2	5153.05	39.35*
				W	5369.530	41	130.96	
Mean Gain	40.46	30.20	4.87					

* The table value for significant at 0.05 level of confidence with df 2 and 42 and 2 and 41 are 3.22 and 3.23.

The table shows that the pre test mean scores of stress on yogic practices with and without diet modifications groups and control group were 107.13, 112.07, 108.53 respectively and the obtained 'f' value on pre test scores 1.18 was less than the required table value 3.23 to be significant at 0.05 level. This proved that there was no significant difference among the groups at initial stage and the randomized assignment of the subjects into three groups were successful. The post test mean scores of yogic practices with and without diet modifications groups and control group were recorded as 66.66, 81.87, and 103.67 respectively, showed improvement over the pre test scores. The obtained f value on post test scores 40.2 was greater than the required table value 3.23 with df 2 and 42. This proved that there was significant difference among the post test means of the subjects. The adjusted post test mean scores of yogic practices with and without diet modifications groups and control group were recorded as 66.92, and 81.53 and 103.75 respectively. The obtained f value of 39.35 of adjusted post test means was greater than the required table required table value 3.22. This proved that there was significant difference among the means due to twelve weeks training on yogic practices with and without diet modifications on psychological variable of stress. Since significant improvements were recorded, the results were subjected to post hoc analysis using scheffe's confidence interval test. The results were presented in table

TABLE II
SCHEFFE'S POST-HOC TEST FOR STRESS

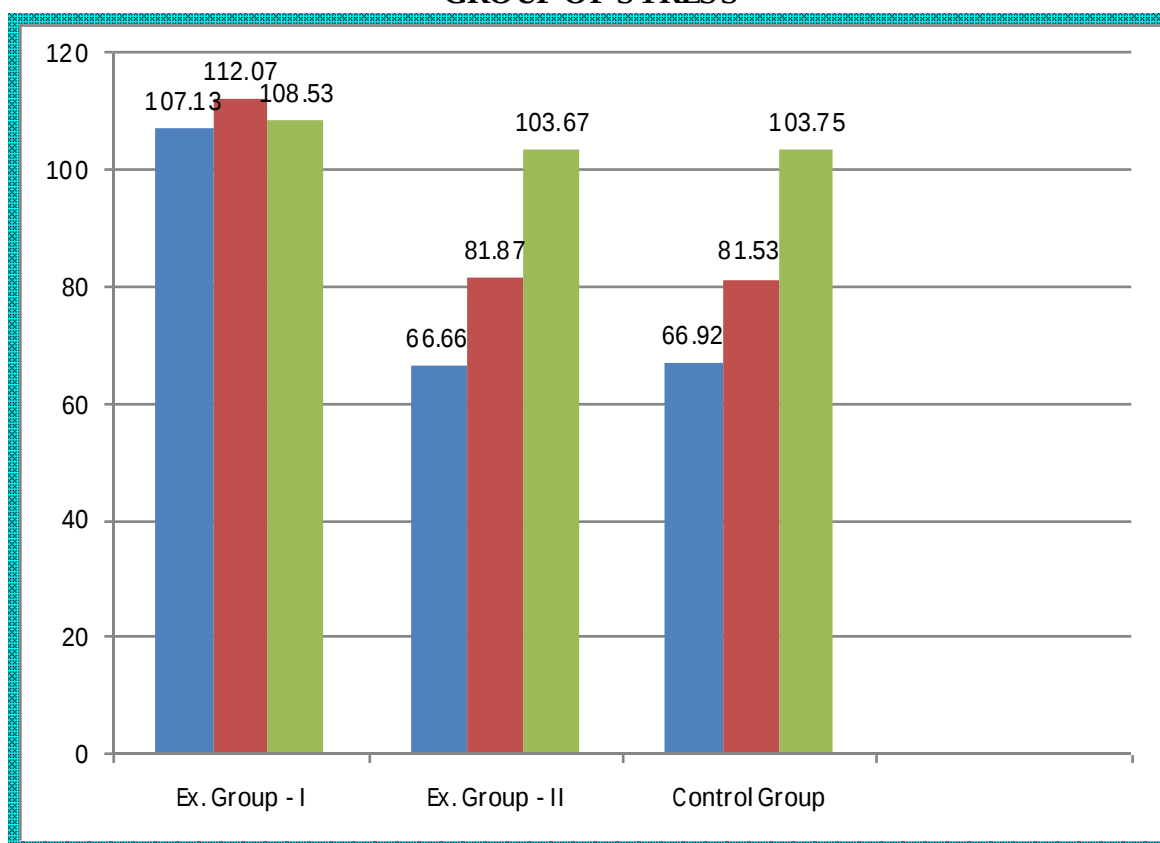
Adjusted post mean for			Mean Difference	Critical Difference at 0.05 level of Significance
Group A	Group B	Control group		
66.92	81.53	-	14.61*	10.40
66.92	-	103.75	36.83*	
-	81.53	103.75	22.22*	

*significant at 0.05 level of significance

The Table shows that Scheffe's confidence interval values of stress of yogic practices with and without diet modification groups and control group of Adult women with oligomenorrhea. Table shows that the adjusted post-test mean difference in stress between EX.GR-I (yogic practices with diet modifications) and control group and between EX.GR-II (yogic practices without diet modifications) and control group are 66.92, 81.53, and 103.75, respectively, which were statistically significant at 0.05 level of confidence. At the same time there was significant difference on stress between the EX.GR-I (yogic practices with diet modifications) and EX.GR-II (yogic practices without diet modifications). The findings of the study on stress reveal that the experimental groups namely EX.GR-I (yogic practices with diet modifications) and EX.GR-II (yogic practices without diet modifications) had significantly improved after the training. Besides, the

results of the study indicated that there was significant difference between the EX.GR-I (yogic practices with diet modifications) and EX.GR-II (yogic practices without diet modifications).

FIGURE I
BAR DIAGRAM SHOWING THE MEAN DIFFERENCE AMONG
EXPERIMENTAL GROUP I, EXPERIMENTAL GROUP II AND CONTROL
GROUP OF STRESS



DISCUSSION ON HYPOTHESIS

1 . The first hypothesis results shows that the calculated ‘F’ value is greater than the table value on the psychological variable among Adult women with oligomenorrhea for post test scores as stress is decreased. This proves that there was significant difference between the experimental groups and control group. Hence the first hypothesis was accepted at 0.05 level of significance.

2. The second hypothesis results proved that the post mean differences between experimental group I , experimental group II, and control group III were found to be greater than the Scheffe’s common interval on the selected psychological variable as stress is decreased. This proves that there was significant difference between the experimental group I and experimental group II. Hence the second hypothesis was accepted at 0.05 level of confidence.

CONCLUSION

The twelve-weeks yogic intervention significantly reduced the psychological variable stress in the post test data of experimental groups, compared to the control

group. The post hoc analysis of the results proved that the yogic practices with diet modifications (experimental group I) was effective than the yogic practices without diet modifications (experimental group II) among Adult women with oligomenorrhea.

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