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Effect of Selected Yogic Practices on Systolic Blood Pressure among Thyroid Affected Women Teacher

Pooja Purushothaman[1] & Dr. R. Babu[2]

[1]*M.Phil (Yoga), Centre for Yoga Studies, Annamalai University, Tamilnadu, India.*
[2]*Professor & Head, Department of Education, Annamalai University, Tamilnadu, India.*

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Abstract

The purpose of the study was to effect of selected yogic practices on systolic blood pressure among thyroid affected women teacher. The study was conducted on 30 women teacher. Totally two groups, namely, control & experimental group consisting of 15 women teacher who underwent 6 weeks yogic practices whereas the control group did not undergo any type of training. The systolic blood pressure was measured before and after the experimentation using the standardized test to measure the investigations and analyzed by Analysis of Covariance (ANCOVA) and it was concluded that the yogic practices had significant (P < 0.05) effect on the systolic blood pressure.

Keywords: Systolic Blood Pressure, Relaxation, Women, Teacher, Yoga.

Introduction

Targeting women's health is a way for societies to bring about social and economic change. The woman's body is wonderfully complex and delicate. However, multiple roles as the mother, daughter, wife, homemaker, wage earner can be physically and mentally quite taxing. The tasks performed by women are usually those that require them to be in one position for long periods of time, which can adversely affect their health. Traditionally, women bear primary responsibility for the well-being of their families. Less time to take care of their own, spending more time for the family members only. India is one of the few countries in the world where women and men have nearly the same life expectancy at birth. The fact that the typical female advantage in life expectancy is not seen in India suggests there are systematic problems with women's health. Indian women have high mortality rates, particularly during childhood and in their reproductive years. The health of Indian women is intrinsically linked to their status in society. Research on women's status has found that the contributions Indian women make to families often are overlooked, and instead they are viewed as economic burdens.

Hypo secretion of thyroid hormone occurs during fetal life or infancy, or during adulthood. These are known as cretinism and myxedema respectively. It is known to lead to dwarfism and mental retardation.

Correspondence
Dr.R.Babu
Annamalai University

Besides other things, cretin also exhibits retarded sexual development and. a yellowish skin color. It lowers the body temperature, slows down the heart rate and brings general lethargy. People suffering from myxedema have sensitivity to cold. By stimulating the function of the thyroid, pituitary, pineal and adrenal glands, Yoga normalizes them. It limbers and stretches the neck, as well as strengthens and tones the nervous system. The thyroid gland is mainly responsible for correct weight and youthful appearance as it controls metabolism. Yoga stimulates the thyroid gland to work at its peak efficiency. Since the pituitary gland also gets stimulated, it helps improve their function.

Purpose of the Study

The present study was designed to effect of yogic practices on systolic blood pressure among thyroid affected women teachers.

Review of Literature

Divya et al. (2017) cardiopulmonary and Metabolic Effects of Yoga in Healthy Volunteers. Yoga the spiritual union of mind with the divine intelligence of the universe aims to liberate a human being from conflicts of body-mind duality. Beneficial cardiovascular and pulmonary effects of yoga are in par with aerobic exercise, even amounting to replace the exercise model. We conducted an interventional study in healthy volunteers, to analyze the impact of short-term yoga training on cardiovascular, pulmonary, autonomic function tests, lipid profile, and thyroid function tests. A sample of fifty new recruits attending the district yoga center was subject to 75

min yoga practice a day for 41 days. Basal values of cardiovascular, pulmonary, autonomic function tests, lipid profile, and thyroid function tests were recorded before yoga training and were reassessed for postyoga changes after 41 days. After yoga practice there was a significant reduction in the resting heart rate, systolic blood pressure, diastolic blood pressure, and mean blood pressure of the participants. Effects on autonomic function tests were variable and inconclusive. There was a significant increase in forced vital capacity, forced expiratory volume in 1 s, and peak expiratory flow rate after yoga. A significant reduction in body mass index was observed. Effects on metabolic parameters were promising with a significant reduction in fasting blood sugar level, serum total cholesterol, serum triglycerides serum low-density lipoprotein levels, and significant increase in high-density lipoprotein. There was no significant change in thyroid function tests after yoga. Short-term yoga practice has no effect on thyroid functions. Yoga practice was found beneficial in maintaining physiological milieu pertaining to cardiovascular and other metabolic parameters.

Methodology

For the present study 30 women teachers aged between 35– 45 years were selected as the subjects from Alapuzha, Kerala. All the subjects were assigned to Experimental group underwent yogic practices consisting 15 subjects. The experimental groups practiced for 6 weeks for five days per weeks. The yogic practices given to the experimental group included Suryanamaskar, sarvangasana, matysasna, bhujangasana, halasana and Meditation. The physiological variable is systolic blood pressure was measured by sphygmomanometer.

Results and Discussions

The data pertaining to the variables collected from the two groups before and after the training period were statistically analyzed by using Analysis of Covariance (ANCOVA) to determine the significant difference and tested at 0.05 level of significance. The following tables illustrate the statistical result of the influence of yogic intervention on thyroid affected women teachers.

Table 1

Computation of analysis of covariance of pre-test, posttest and adjusted post-test on systolic blood pressure of yogasana and control group (Scores in mm/Hg)

	Experimental Group	**Control Group**	**Source of Variance**	**Sum of Squares**	**df**	**Mean Squares**	**Obtained F**
Pre Test							
Mean	141.33	140.93	**Between**	1.2	1	1.2	0.05
SD			**Within**	670.26	28	23.93	
Post Test							
Mean	124	141.46	**Between**	2288.13	1	2288.13	**128.20***
SD			**Within**	499.73	28	17.84	
Adjusted Post Test							
Mean	123.87	141.59	**Between**	2351.56	1	2351.56	**282.74***
			Within	224.55	27	8.31	
Mean Diff	17.33	0.53					

* Significant at 0.05 level Table F-ratio at 0.05 level of confidence for 1 and 28 (df) = 4.20, 1 and 27 (df) = 4.21

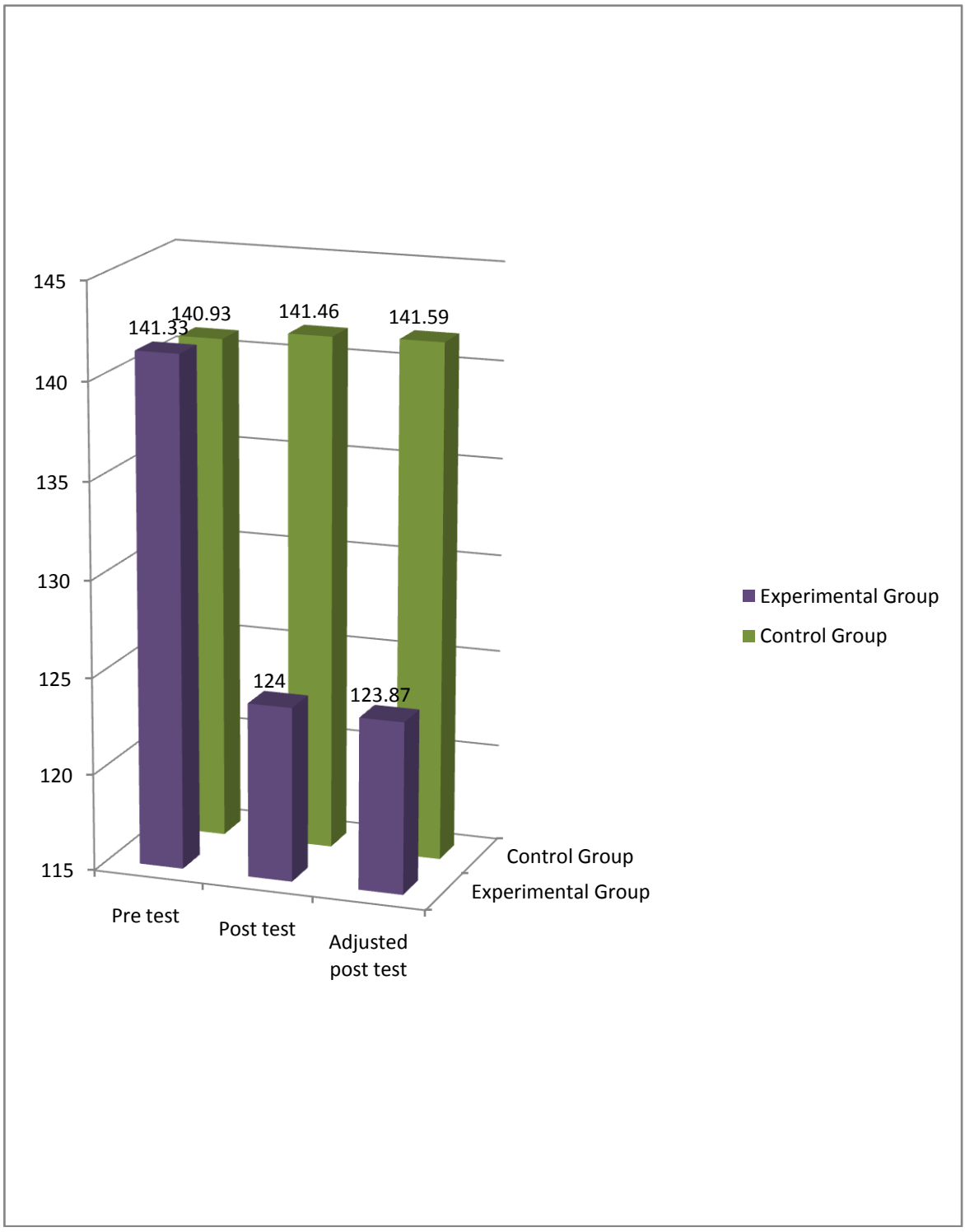
Table 2

Ordered adjusted systolic blood pressure means, differences between means and scheffe's post-hoc test f-ratio of yogasana and control group (Scores in mm/Hg)

Experimental Group I	**Control Group II**	**Mean difference**	**Required C.I**
123.87	141.59	17.72*	1.74

***** Significant at .05 level

Figure I
Bar diagram on ordered adjusted means of systolic blood pressure (Scores in mm/Hg)



Results of Systolic Blood Pressure

The analysis of covariance of systolic blood pressure data between pre-test and post-test of the two groups have been presented in Table I. Table I shows the analysis of covariance of systolic blood pressure. The pre-test means of experimental group and control group were 141.33 and 140.93 respectively. Since the obtained F-ratio of 0.05 is lower than the table value, F-ratio of 4.20, the pre-test means were not significant at 0.05 level of confidence with the degrees of freedom 1 and 28. The post test means of experimental group and control group were 124 and 141.46 respectively. The obtained F-ratio

of 128.20 is seen to be higher than the table F-ratio of 4.20. Hence, the differences among the post-test means were significant at 0.05 level of confidence with degrees of freedom 1 and 28. The adjusted post-test means of experimental group and control group were 123.87 and 141.59 respectively. Since the obtained F-ratio of 282.74 is higher than the table F-ratio of 4.21 the adjusted post-test mean difference amount the two groups were significant at 0.05 level of confidence with the degrees of freedom 1 and 27. Scheffe's post-hoc test was resorted-to, to find out the significance of ordered adjusted final means difference among the groups. Table II shows the Scheffe's post-hoc test results. The ordered adjusted systolic blood pressure means, differences between means and Scheffe's Post Hoc test F-ratio of yogic group and control group were tested for significance against Scheffe's post-hoc test F ratio.

Conclusion

Based on the results obtained, the following conclusion was drawn: It was concluded that Experimental (Yoga) group was effective than the control group in decreasing systolic blood pressure among women teachers.

References

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