EFFECT OF YOGIC PRACTICES ON SELECTED PHYSIOLOGICAL VARIABLES OF SCHOOL STUDENTS

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Abstract
The purpose of the study was to find out the effect of yogic practices on selected physiological variables of school students. It was hypothesized that there would be significant differences on selected physiological variables due to the effect of yogic practices among school players. For the present study the 40 school students from Alagappa Matric Higher Secondary School, Karaikudi, Tamilnadu were selected at random and their age ranged from 13 to 15 years. For the present study pre test – post test random group design which consists of control group and experimental group was used. The subjects were randomly assigned to two equal groups of twenty each and named as Group 'A' and Group 'B'. Group 'A' underwent yogic practices and Group 'B' has not undergone any training. The data was collected before and after six weeks of training. The data was analyzed by applying dependent 't test. The level of significance was set at 0.05. The yogic practices had positive impact on resting heart rate and breath holding time among school students players.

Key words: Yogic practices, Resting heart rate, Breath holding time, School Students.

INTRODUCTION

Yoga is a systematic practice for the realization of higher perceptions. It is the science of life and an ideal way of living, providing rhythm to the body, melody to the mind, harmony to the soul and thereby symphony to life. In short, Yoga is a way to achieve total health, peace, bliss and wisdom. Physical, mental and spiritual aspects of yoga help to make one's life purposeful, useful and noble. Thus Yoga is an art, science and philosophy, which influence the life of man at each level. Therefore, the effect of yoga must be felt in every movement of our day to day lives. Yoga is an ancient Indian science which teaches man how to live in unity within himself and with those around him. It is recognized as one of the most important and valuable heritages of India. More than 2000 years ago our ancestors developed it to bind the body, mind and spirit, as a harmonious whole. It has been growing in popularity with unbelievable rapidity over the years. Today the whole world is looking towards yoga for answers to the various problems the modern man is facing.

Yoga is an ancient form of relaxation and exercise that has many health benefits, including lowering cholesterol. Pranayama also helps to connect the body to its battery, the solar plexus, where tremendous potential energy is stored. When tapped through specific techniques this vital energy, or prana, is released for physical, mental and spiritual rejuvenation. Regular practice removes obstructions, which impede the flow of vital energy. When the cells work in unison, they bring back harmony and health to the system. 20 to 25 minutes (every morning or evening) of pranayama practice increases lung capacity, breathing efficiency, circulation, cardiovascular efficiency, helps to normalize blood pressure, strengthens and tones the nervous

system, combats anxiety and depression, improves sleep, digestion and excretory functions, provides massage to the internal organs, stimulates the glands, enhances endocrine functions, normalizes body weight, provides great conditioning for weight loss, improves skin tone and complexion (Eugene, 1997).

METHODOLOGY

The purpose of the study was to find out the effect of yogic practices on selected physiological variables of school students. It was hypothesized that there would be significant differences on selected physiological variables due to the effect of yogic practices among school players. For the present study the 40 school students from Alagappa Matric Higher Secondary School, Karaikudi, Tamilnadu were selected at random and their age ranged from 13 to 15 years. For the present study pre test – post test random group design which consists of control group and experimental group was used. The subjects were randomly assigned to two equal groups of twenty each and named as Group 'A' and Group 'B'. Group 'A' underwent yogic practices and Group 'B' has not undergone any training. The data was collected before and after six weeks of training. The data was analyzed by applying dependent 't test. The level of significance was set at 0.05.

Table –I
Variables and Test

S.No	Variables	Tests
1	Resting heart rate	Bio-Monitor
2	Breath holding time	Manual Method (Nose Clip)

RESULTS

The findings pertaining to analysis of dependent 't' test between experimental group and control group on selected physiological variables of school students for pre-post test respectively have been presented in table II to III.

Table –II
Significance of Mean Gains & Losses between Pre and Post Test Scores on Selected Variables of Yogic practices Group (YPG)

S.No	Variables	Pre-Test Mean	Post-Test Mean	Mean difference	Std. Dev (±)	σ DM	't' Ratio
1	Resting heart rate	73.40	68.15	5.25	1.44	0.32	16.23*
2	Breath holding time	34.88	47.69	12.81	5.17	1.15	11.07*

* Significant at 0.05 level

Table II shows the obtained 't' ratios for pre and post test mean difference in the selected variable of resting heart rate (16.23) and breath holding time (11.07). The obtained ratios when compared with the table value of 2.09 of the degrees of freedom (1, 19) it was found to be statistically significant at 0.05 level of confidence. It was observed that the mean gain and losses

made from pre to post test were significantly improved in physiological variables namely resting heart rate (5.25, $p<0.05$) and breath holding time (12.81, $p<0.05$) thus the formulated hypothesis is accepted.

Figure- I

Comparisons of Pre – Test Means and Post – Test Means for Experimental Group in Relation to Physiological Variables

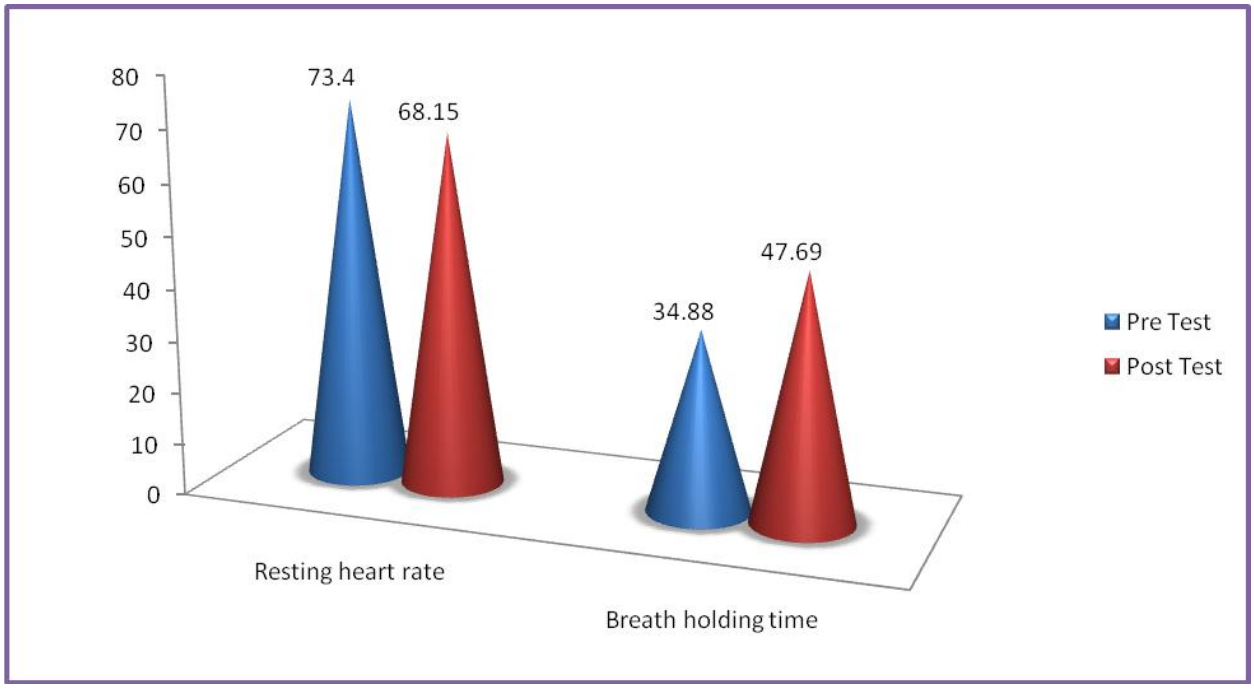


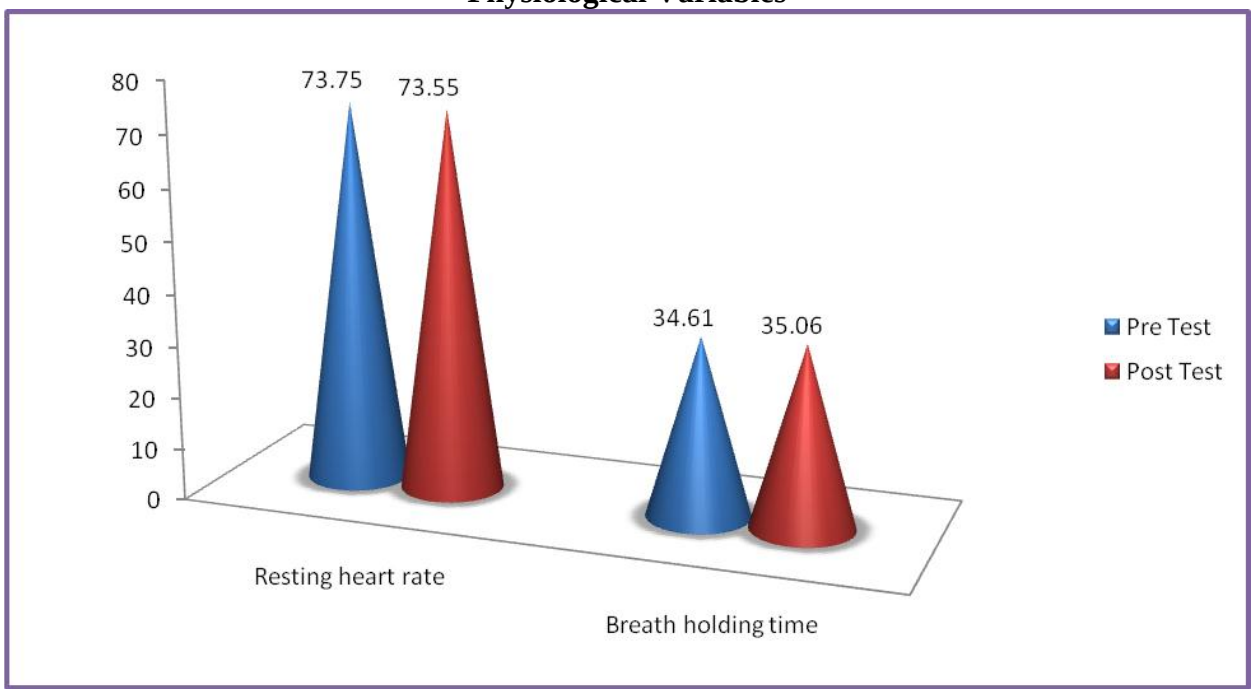
Table – III
Significance of Mean Gains & Losses between Pre and Post Test Scores on Selected Variables of Control Group (CG)

S.No	Variables	Pre-Test Mean	Post-Test Mean	Mean difference	Std. Dev (±)	σ DM	't' Ratio
1	Resting heart rate	73.75	73.55	0.20	1.67	0.37	0.53
2	Breath holding time	34.61	35.06	0.45	1.67	0.37	1.20

* Significant at 0.05 level

Table III shows the obtained 't' ratios for pre and post test mean difference in the selected variable of resting heart rate (0.53) and breath holding time (1.20). The obtained ratios when compared with the table value of 2.09 of the degrees of freedom (1, 19) it was found to be statistically insignificant at 0.05 level of confidence. It was observed that the mean gain and losses made from pre to post test were not insignificantly improved in physiological variables.

Figure II
Comparisons of Pre – Test Means and Post – Test Means for Control Group in Relation to Physiological Variables



CONCLUSION

On the basis of findings and within the limitations of the study the following conclusions were drawn:

1. The yogic practices had positive impact on resting heart rate and breath holding time among school students players.

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