



EFFECT OF YOGA ON CARDIO RESPIRATORY ENDURANCE AMONG COLLEGE STUDENTS

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Abstract

The purpose of the study was to find out the effect of yoga on cardiorespiratory endurance among college students. To achieve this purpose of the study, thirty students from Department of Physical Education and Sports Sciences, Annamalai University, Annamalai Nagar, Chidambaram, Tamil Nadu, and India were selected as subjects at random. The selected subjects were divided into two equal groups of fifteen subjects each, such as experimental group and control group. The group I underwent yoga practice for three days per week for twelve weeks. Group II acted as control who did not participate any special training. The analysis of covariance was used to analyze the significant difference, if any between the groups. The level of significance to test the 'F' ratio obtained by the Analysis of Covariance was tested .05 level of confidence, which was considered as an appropriate. It was concluded that the experimental group produced significant improvement on cardiorespiratory endurance than the control group.

Keywords: Yoga, Cardiorespiratory Endurance, College Men.

INTRODUCTION

The science of yoga works on physical, mental, emotional, psychic and spiritual aspects of a person. When imbalance is experienced at this level, the organs, muscles and nerves no longer functions in harmony, rather they at in opposition to each other. Therefore yoga aims at bringing the different bodily functions into perfect co-ordination so that they work for the good of the whole body. Yoga is one of India's wonderful gifts to mankind. One of its valuable qualities is that it builds up a store of physical health through the practice of a system of exercises called asanas which keep the body cleansed and fit. Yoga believes that exercise is essential for speedy removal of toxins and for keeping blood circulation and all internal processes functioning smoothly.

Maharishi Patanjali, the father of modern concept of yoga and a great physician himself, in the 300 BC defined yoga as the complete mastery of mind and emotions. Unlike so many other philosophies of the world, it is a scientific philosophy that is wholly practical. Yoga is an exact science which has its foundation on certain immutable laws of nature and establishes "Mind over body". The gaining of a healthy body with a calm and steady mind under all

circumstances is the common aspiration of every individual. The word yoga is derived from the Sanskrit word "Yuj" which means Control or 'unite'. Both these words quite adequately give the meaning of "yoga".

METHODOLOGY

The purpose of the study was to find out the effect of yoga on cardiorespiratory endurance among college students. To achieve this purpose of the study, thirty students from Department of Physical Education and Sports Sciences, Annamalai University, Annamalai Nagar, Chidambaram, Tamil Nadu, and India were selected as subjects at random. The selected subjects were divided into two equal groups of fifteen subjects each, such as experimental group and control group. The group I underwent yoga practice for three days per week for twelve weeks. Group II acted as control who did not participate any special training. The analysis of covariance was used to analyze the significant difference, if any between the groups. The level of significance to test the 'F' ratio obtained by the Analysis of Covariance was tested .05 level of confidence, which was considered as an appropriate.

RESULTS

TABLE – I
COMPUTATION OF MEAN AND ANALYSIS OF COVARIANCE OF CARDIORESPIRATORY ENDURANCE OF
EXPERIMENTAL AND CONTROL GROUPS

	Experimental Group	Control Group	Source of variance	Sum of squares	df	Mean square	F
Pre test mean	116.93	118.13	BG	10.80	1	10.80	0.23
			WG	1284.66	28	45.88	
Post test mean	102.53	117.20	BG	1613.33	1	1613.33	27.14*
			WG	1664.13	28	59.43	
Adjusted post mean	102.98	116.75	BG	1407.52	1	1407.52	41.07*
			WG	925.47	27	34.27	

* Significant at 0.05 level

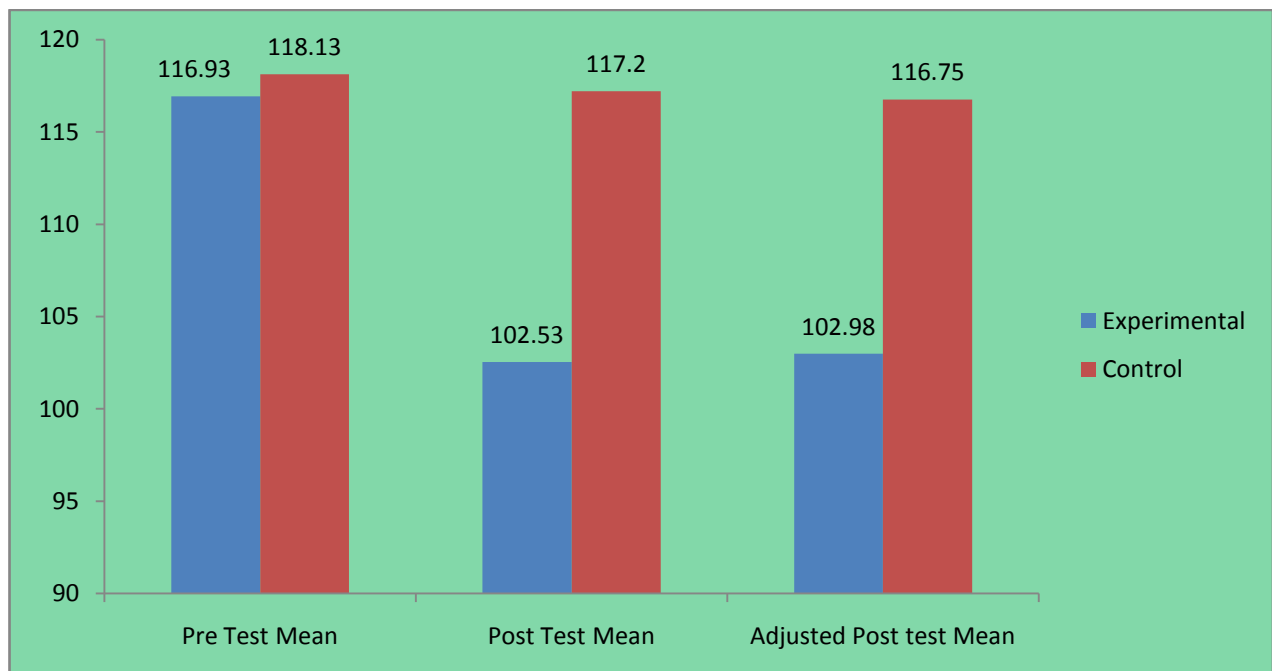
Table value for df 1 and 28 was 4.20

Table value for df 1 and 27 was 4.21

The above table indicates the adjusted mean value of cardiorespiratory endurance of experimental and control groups were 102.98 and 116.75 respectively. The obtained F-ratio of 41.07 for adjusted mean was greater than the table value 4.21 for the degrees of freedom 1 and 27 required for significance at 0.05 level of confidence. The result of the study indicates that there was a

significant difference among experimental and control groups on cardiorespiratory endurance. The above table also indicates that both pre and post test means of experimental and control groups also differ significantly. The pre and post mean values of cardiorespiratory endurance of both control and experimental groups are graphically represented in the Figure-I.

FIGURE I
CARDIORESPIRATORY ENDURANCE



CONCLUSION

It was concluded that the experimental group produced significant improvement on cardiorespiratory endurance than the control group.

REFERENCES

1. Amita, S., Prabhakar, S., Manoj, I., Harminder, S., Pavan, T. (2009). Effect of yoga-nidra on blood glucose level in diabetic patients. *Indian Journal of Physiology and Pharmacology*, Vol.53 (1): PP.97-101.
2. Andreasi, V., Michelin, E., Rinaldi, A, E., Burini, R, C. (2010). Physical fitness and associations with anthropometric measurements in 7 to 15-year-old school children. *Journal De Pediatria*, Vol.86 (6): PP.497-502.
3. Astrup (2001). The role of dietary fat in the prevention and treatment of obesity, Efficacy and safety of low-fat diets. *International Journal of Obesity Related Metabolism disorder*, Vol.25 (1): PP.S46-50.
4. Bera, T, K., Rajapurkar,M,V.(1993). Body composition, cardiovascular endurance and anaerobic power of yogic practitioner. *Indian Journal of Physiology and Pharmacology*, Vol.37 (3): PP.225-8.
5. Bertisch,S,M.,Wee,C,C.,McCarthy,E,P. (2008). Use of complementary and alternative therapies by overweight and obese adults. *Journal of Research and Education in Complementary and Integrative Medical Therapies*, Vol.16 (7): PP.1610-5.
6. Bosch, P,R.,Traustadottir,T., Howard,P., Matt,K,S.(2009).A study on functional and physiological effects of yoga in women with rheumatoid arthritis: a pilot study. *Journal of Alternative and Health Medicine*, 15:4, PP.24-31.
7. Chatterjee,F.,Bruce,S,A.,Woldege,R,C. (2010)Effect of yogic Exercises on human Growth hormone in a middle aged group: a pilot study. *Yoga Mimamsa a Quarterly Journal*, vol XLII.1, PP.40-47.
8. Chen, K, M., and Tseng,W,S.(2008).Effect of newly developed silver yoga exercise program for female seniors. *Journal of Nursing and Research*, Vol.6 (1): PP.37-46.
9. Chen, T, L., Mao,H,C., Lai ,C,H., Li ,C,Y., Kuo,C,H.(2009). The effect of yoga exercise intervention on health related physical fitness in school-age asthmatic children. *The Journal of Nursing-Taiwan*, Vol.56 (2): PP.42-52.