



EFFECT OF YOGIC PRACTICES ON CARDIO RESPIRATORY ENDURANCE OF SPORTSMEN

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Abstract

The main aim of the research was to effect of yogic practices on cardio respiratory endurance of university men players. To achieve this purpose thirty men players were randomly selected as subjects. The age of the subjects were ranged from 19-25 years. The selected subjects were divided into two equal groups of 15 subjects each. Group –I considered as experimental group who underwent yogic practices for eight weeks and Group –II considered as control that did not participate in the yogic practices programme. All the subjects of two groups were tested on cardio respiratory endurance at before the commencement of yogic practices (pre-test) and after the eight weeks of yogic practices (post-test). To arrive at meaningful conclusions analysis of covariance was used and the level of significance of the test “F” ratio obtained by the analysis of covariance was fixed at 0.05 level of confidence which was considered to be appropriate. The results indicated that the experimental group had significant change in cardio respiratory endurance of experimental group due to the eight weeks of yogic practices when compared to control group. The effect of yogic practices might be the reason for the improvement of cardio respiratory endurance.

Keywords: Yogic Yogic practices, experimental group, control group and cardio respiratory endurance.

INTRODUCTION

Yoga has been practiced in India for over two millennia. Stories and legends from ancient times testify to the existence of yoga, and to the practitioners and divinities associated with it. Indian literature is a storehouse of knowledge about yoga covering every conceivable level. Roughly in chronological order are the vocals (books of Scriptural knowledge), the upanishada (philosophical cosmologies), and their commentaries then the puranas (ancient cosmologies), and the two epics, the ramayana and the mahabharatha. The mahabharatha contains within itself that masterpiece of indian scripture the bhagavad gita. Towards the end of vedic period comes the aphoristic literature, with the “yoga aphorisms” of patanjali of special interest to yoga students. These are, besides, whole bodies of works both ancient (Pre-Christian) and more modern dealing with various aspects of yoga and yoga philosophy, testifying to the continued relevance of yoga as a discipline.

The aim of man’s life is to get rid of the worries, anxieties and sufferings of the world and to achieve peace and bliss. To get rid of the tempting delusions, sorrows and pains of the world, there are different paths of yoga namely Bhakti yoga, Karma yoga, Dhyana yoga, Jnana yoga, Hatha yoga and other yogas. The paths may be different but the ultimate aim is the same. Our body has been called the temple of the God. According to

Shankracharya we can see the image of God in our own body if maintained purity and free from disease. Just as spotless mirror gives clear reflection, the body and mind if maintained purity and health can lead up to success. Yoga is a science of physical and mental control. It is a system of self-renewal of mind and body. It is a means of acquiring a slim supple and healthy body. It can be a way to achieve inner tranquility. It is also a path to great spiritual attainment. Our ancient Rishis and sages have given eight stages of yoga. They are Yama, Niyama, Asana, Pranayama, Pratyahara, Dharana, Dhyana and Samadhi (Kumar kaul, 1992). The prime goal of this study was to find out the effect of yogic practices on cardio respiratory endurance in sportsmen.

METHODOLOGY SUBJECTS

To achieve the purpose of the study university 30 players of various games and sports were randomly selected as subjects from Annamalai University, Annamalai nagar, Chidambaram, Tamilnadu. The age of the subjects were ranged between 18 to 25 years. The selected subjects were divided into two groups of 15 subjects each. Group I considered as experimental group and Group II considered as control group.

VARIABLES

The yogic practices selected as

experimental variable and cardio respiratory endurance was selected as criterion variable for this study.

TRAINING PROGRAMME

In this study the experimental group underwent yogic practices for 5 days per week for 8 weeks. On every day of the training session the suryanamaskar, asanas, pranayama, kriya and followed by Relaxation techniques were practiced approximately 45 min. The control group did not participate in this training programme and strenuous physical activities apart from their day to day regular practice. The experimental group underwent the following yogic practices under the instruction and supervision of the investigator. The data were collected before and after eight weeks of yogic practices on cardio respiratory endurance cardio respiratory endurance and it was measured by using Cooper’s twelve minutes

run/walk test.

STATISTICAL PROCEDURE

The collected data from the experimental and control group during pre and post test on cardio respiratory endurance. The analysis of covariance (ANCOVA) was applied to find out significant difference if any between the experimental and control group as a result of eight weeks of yogic practices. In all cases .05 level of confidence was utilized to test the significance.

RESULTS

CARDIO RESPIRATORY ENDURANCE

Analysis of covariance of data on cardio respiratory endurance between pre-test and post-test of experimental and control group is given in table I.

**TABLE- I
ANALYSIS OF COVARIANCE OF DATA ON CARDIO RESPIRATORY ENDURANCE
BETWEEN PRE-TEST AND POST-TEST OF EXPERIMENTAL AND CONTROL GROUP**

	Experimenta l group	Control group	SOV	Sum of squares	df	Mean square	‘F’ Ratio
Pre-Test							0.75
Mean	2301.00	2299.00	B:	650.00	1	650.00	
SD	35.66	33.59	W:	24267.60	28	866.70	7.56*
Post-Test							
Mean	2480.00	2315.00	B:	1840.24	1	1840.24	
SD	33.00	34.41	W:	6815.75	28	243.421	92.24*
Adjusted Post-Test							
Mean	2478.00	2305.00	B:	1315.32	1	1315.32	
			W:	5139.45	27	190.35	

* Significant at 0.05 level of confidence.

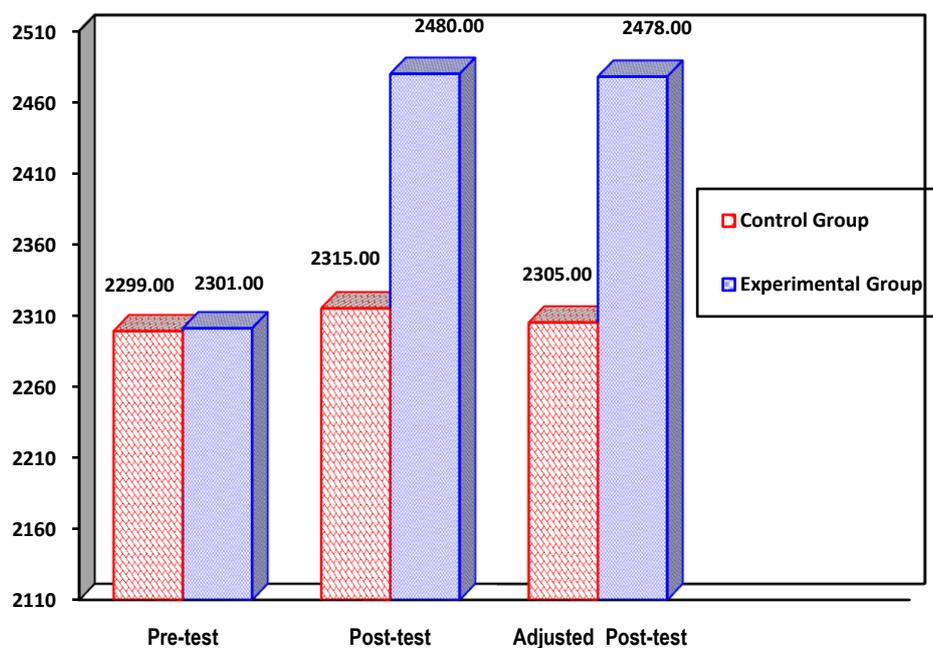
df-degrees of freedom; SD-Standard Deviation; S.O.V.-Source of Variance. B-Between; W-Within

The table value required for significance at 0.05 level with df 1 & 28, and 1 & 27 are 4.20 and 4.13 respectively.

Table-I shows that the pre-test means of experimental group and control group are 2301.00 and 2299.00 respectively. The obtained ‘F’ ratio of 0.75 for pre-test means is less than the table value of 4.20 for df 1 and 28 required for significance at 0.05 level. It indicates that there is no significant difference among the groups in the pre-test. The post-test means of experimental group and control group are 2480.00 and 2315.00 respectively. The obtained ‘F’ ratio of 7.56 for post-test mean is more than the table value of 4.20 for df 1 and 28 required for significance at 0.05 level. It implies that there are significant variations among different intensity groups and control group. The adjusted post-test

means of experimental and control group are 2478.00 and 2305.00 respectively. The obtained ‘F’ ratio of 6.91 for adjusted post-test is more than the table value of 4.13 for df 1 and 27 required for significance at 0.05 level. The result of the study indicates that there is significant difference between experimental group and control group on the changes in cardio-respiratory endurance after eight weeks of yogic practices. The mean values in cardio-respiratory endurance of yoga practice group and control group graphically represented in figure-I.

FIGURE I
THE PRE-TEST, POST-TEST AND ADJUSTED POST-TEST MEAN VALUES OF
EXPERIMENTAL GROUP AND CONTROL GROUP ON CARDIO
RESPIRATORY ENDURANCE



FINDINGS

The above results indicated that the experimental group had significant changes in cardio respiratory endurance of experimental group due to the eight weeks of yogic practices when compared to control group. The effect of yogic practices might be the reason for the improvement of cardio respiratory endurance.

The present study indicates that eight weeks of yogic practice improve the cardio respiratory endurance among the adolescents. The above findings very well be supported by observations made by the following studies conducted by Gutin et al. (2002) and Bhutkar et al., (2008).

Ramesh and Subramaniam, (2010 and 2011) suggested that 12 weeks of aerobic exercise training improve the cardio respiratory endurance obese adolescence. Mody (2010) stated that regular practice of Surya Namaskar may maintain or improve cardio-respiratory endurance.

CONCLUSION

It was concluded that significant differences between experimental and control groups on cardio respiratory endurance. There was a significant improvement in cardio respiratory endurance. However the improvement was in favour of experimental group due to eight weeks of yogic practices.

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