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Effect of yogic practices on selected cardio respiratory endurance of men students

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Abstract

Yoga, a Vedic science has been applied in the field of therapeutics in modern times. Yoga has given patients the hope to reduce medication besides slowing the progression of the disease. Yoga employs stable postures or asana and breath control or pranayama. It has already 16 proven its mettle in the improvement of oxidative stress as well as in improving the glycaemic status of diabetics through neuroendocrinal mechanism. (Yadav, *et al.*, 2005)

The purpose of the preset study was to find out the effect of yogic practices on health related cardio respiratory endurance of the adolescents. To achieve the purpose of this study, a qualified physician examined 30 students were selected at random, their age ranged from 18 to 24 years of age. The selected subjects were divided into one experimental groups and a control group with fifteen subjects in each (n=15). Experimental group underwent yogic practices (YPG) and Group II served as control group (CG) for the training period of 12 weeks. All the subjects were informed about the nature of the study and their consent was obtained to co-operate until the end of the experiment and testing period. The data collected from the three groups before and after the experimental period was statistically examined to find out the significant improvement using the analysis of covariance (ANCOVA).

It is interfered from the findings of the study that cardio-respiratory endurance, has significantly improved for yogic practice group.

Keywords: Effect, yogic practices, men students

1. Introduction

Yoga, a Vedic science has been applied in the field of therapeutics in modern times. Yoga has given patients the hope to reduce medication besides slowing the progression of the disease. Yoga employs stable postures or asana and breath control or pranayama. It has already proven its mettle in the improvement of oxidative stress as well as in improving the glycaemic status of diabetics through neuroendocrinal mechanism. (Yadav, *et al.*, 2005)

Pratyahara should be aided by quiet breathing. When all are agitated our breathing is fast and jerky, but if we breathe quietly and evenly tranquility of mind is promoted. Oxygen is the vital fuel of life. It powers all human activity, from the metabolism of a single cell to the concentration of a muscle. Breathing is the activity that takes oxygen into the body from the air- in rough terms. 20 percent of air is made up of oxygen and 80 percent of nitrogen and expels carbon dioxide, which is the waste product produced using oxygen. And since the body does not store oxygen, except for a small amount that is held in the muscle, its supply must be continuous. As we inhale, air is sucked into the lungs, where it passes through tubes of descending size the trachea, bronchi, and bronchiole until it reaches tiny sacs called alveoli.

1.1 Objectives of the study

To find out the influence of yogic practices on health related physical fitness such as cardio respiratory endurance.

2. Methodology

The purpose of the preset study was to find out the effect of yogic practices on cardio respiratory endurance of the obese adolescents. To achieve the purpose of this study, a qualified physician examined 90 male students from Annamalai University Tamil Nadu, India, and found out 30 adolescents out of 90 obese adolescents 30 adolescents were selected at random, their age ranged from 18 to 24 years of age.

The selected subjects were divided into one experimental groups and a control group with fifteen subjects in each (n=15). Experimental group underwent yogic practices (YPG) and Group II served as control group (CG) for the training period of 12 weeks. All the subjects were informed about the nature of the study and their consent was obtained to cooperate until the end of the experiment and testing period. The data collected from the three groups before and after the experimental period was statistically examined to find out the significant improvement using the analysis of covariance (ANCOVA).

2.1 Selection of Criterion Measures Test

After reviewing the available literature, the following standardized tests were selected and used to collect the relevant data on the selected dependent variables and they are presented in table I.

Table I: Selection of tests

Variables	Test/Method/Instrument	Unit of Measurement
Cardio-respiratory Endurance	Endurance 9 minutes Run/Walk	In Meters

2.2 Test Administration

Nine Minutes Run/Walk Test Objective

To measure cardio-respiratory endurance

Table I: Analysis of Covariance for the Pretest and Post-test Data on Cardio Respiratory Endurance of Yogic Practices and Control Groups

	Experimental group	Control group	SOV	Sum of Squares	df	Mean Square	F' Ratio
Pre-Test Mean	1244.76	1244.21	B	2.30	1	2.30	0.266
SD	2.73	3.13	W	242.30	28	8.65	
Post-test Mean	1297.16	1244.76	B	20589.53	1	20589.53	3494.46*
SD	2.07	2.73	W	164.97	28	5.89	
Adjusted Post-test Mean	1297.20	1244.72	B	20459.30	1	20459.30	3458.39*
			W	159.72	27	5.91	

*Significant at 0.05 level of confidence The require table value for significant at 0.05 level of confidence with degree of freedom1 and 28 is 4.20and degree of freedom for 1and 27 at 4.21

Table I shows that the pre-test means in cardio-respiratory endurance performance of yoga practice group YPG and the control groups (CG) are 1244.76 and 1244.21respectively, resulted in an “F” ratio of 0.266 which indicates statistically no significant difference between the pre-test means at 0.05 level of confidence. The post-test means of cardio-respiratory endurance of, YPG and the control groups (CG) are 1297.16 and 1244.76 respectively, resulted in an “F” ratio of 3494. 46 which indicates statistically significant difference between the post-test means at 0.05 level of confidence. The adjusted posttest means of cardio-respiratory endurance of the, YPG and the control groups (CG) are1297.20 and 1244.72 respectively. The obtained adjusted post-test mean value was 3458.39, which was higher than the table value 4.20 with df 1 and 27 at 4.21 required for significance at 0.05 level. It indicates that there was a significant difference among the adjusted posttest means of cardio-respiratory endurance performance of the YPG and the control groups (CG).

This shows there is improvement in the cardio-respiratory endurance in experimental group compared with control group. The pre-test, post-test and adjusted post-test mean values of yogic practice group (YPG) and control group (CG) on cardio-respiratory endurance are graphically presented in figure 1.

2.3 Equipments

400-mts track, marked at 50 meters interval, stop watch and whistle.

2.4 Procedure

Subjects were advised to use standing start method. The subjects stood behind the starting line with the command ‘ready’ and on ‘clap’ they ran within the allotted time. When 8th minutes have elapsed, the test administrator calls out the time left to run. At the end of the 9th minutes, the test administrator blows a blast on his whistle and the subject’s notes the making he has just passed.

2.5 Scoring

The score in meters in determined by multiplying the number of laps completed, plus the number of segment of a lap, plus the meters stopped off between a particular segments. (Johnson and Nelson, 1988) 117 aahperd health related physical fitness test nine minutes run/walk test sit and reach test

2.6 Analysis of Data

Cardio-Respiratory Endurance

The analysis of covariance on the data obtained for cardio-respiratory endurance of pre and post-test of yoga practices (YPG) and control (CG) groups have been presented in table I.

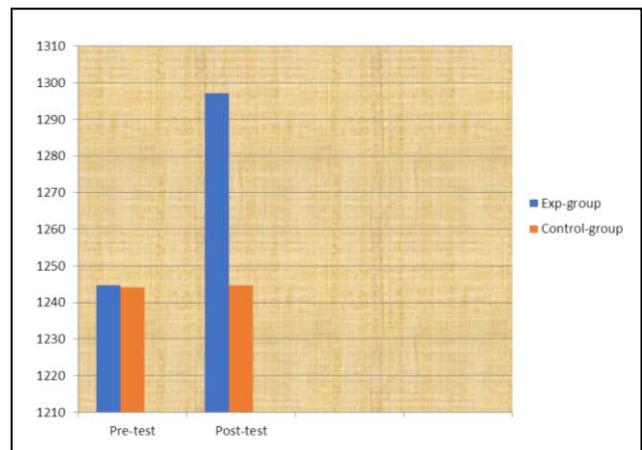


Fig 1: Graphical representation of the data on cardio-respiratory endurance

3. Discussion

It is interfered from the findings of the study that cardio-respiratory endurance, has significantly improved for yogic practice group. It was concluded from the results of the study that the yoga practices groups showed significant improvement in, cardio respiratory endurance when compared with a control group as well as pre-test.

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