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EFFICACY OF ASANA TRAINING ON CARDIO RESPIRATORY ENDURANCE AND VITAL CAPACITY OF COLLEGE MEN

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ABSTRACT

The purpose of this study was to find out the efficacy of asana training on cardio respiratory endurance and vital capacity of college men. The investigator selected 40 college men students from Sri Venkateswara University College of Arts and Science and Sri Govindarajulu College of Arts and Science, Tirupathi, Andhrapradesh. Their ages were ranged from 21 to 25 years. The subjects were divided into two equal groups. Group I consist 20 subjects called as experimental group and group II consist of 20 subjects called as control group .The group I was assigned to asana training for a period of 12 weeks. The control group was not allowed to participate in any kind of training. The dependent variables namely cardio respiratory endurance and vital capacity was selected and measured by cooper 12 minutes run and walk test and wet spirometer respectively for this study. The data was analyzed by the use of paired 't' test. The obtained 't' ratio was tested for significance at 0.05 level of confidence. The analysis of the data revealed that there was a significant improvement on the selected dependent variables namely cardio respiratory endurance and vital capacity by the application of asana training programme.

Key words: Asana, cardio respiratory endurance and vital capacity.

INTRODUCTION

Yoga is associated with a healthy and lively lifestyle with a balanced approach to life. It is the union between the mind, body and spirit. It involves the practice of physical postures and poses, which is referred to as 'Asana' in Sanskrit. Our modern day lifestyle is too hectic and puts a lot of stress on us which in turn causes a lot of life style problems like obesity, hypertension, high cholesterol, diabetes etc. Yoga is the answer to all these problems. It offers harmless solutions to these problems in the form of relaxation. Studies in the field of medicine suggest that Yoga is the only form of physical activity that provides complete exercise to the body as it incorporates different aspects of science, philosophy and art. It is one of the most effective and integrated systems for gaining control and experiencing supreme joy in life. It helps one achieve optimum physical and psychological health. Asana are postures, which contributes to stability and sense of well being. The stability here refers not merely of the posture but of the mind and the body as a whole.

ASANA

Asana is derived from the root 'as' which means 'to sit', 'to remain', ect., according to Patanjali, Asana is defined as, 'sthiram sukam asanam' meaning, that position which is comfortable and steady. Hence yoga asana mean, a state of being in which an individual can remain physically and mentally steady, clam, quite and comfortable. Asana is derived from three basic body posture of standing, sitting or lying down. But they are not a series of movements to be followed mechanically. They have a logic which must be internalized if the pose is to be practiced correctly. The practice of asana has a beneficial impact on whole body. Asana not only tone the muscle, tissues, ligaments, joints and nerves, but also maintain the smooth function and health of all the bodily systems. They relax the body and allowing from fatigue or weakness and the stress of daily life. Asana also boost metabolism, lymphatic circulation, and hormonal secretions, and bring about a chemical balance in the body. The teachings of yoga are very clearly expounded in the yoga sutra. Composed around two thousand years ago, this work still considered the final authority on yoga. Yoga techniques have undergone an organic evolution. (Saraswati, Swami Satyananda (2008)).

METHODOLOGY

For the purpose of the study 40 college men students were selected from Sri Venkateswara University College of Arts and Science and Sri Govindarajulu College of Arts and Science, Tirupathi, Andhra Pradesh and their ages were ranged from 21 to 25 years. The subjects were divided into two equal groups. Group I consist 20 subjects called as experimental group and group 2 consist of 20 subjects called as control group .The group I was assigned to asana training programme for a period of 12 weeks. The control group was not allowed to participate in any kind of training. The subjects were tested on the selected

dependent variables namely cardio respiratory endurance and vital capacity was selected and measured by cooper 12 minutes run and walk test and wet spirometer respectively for this study, before and after the training period. The collected data was treated by using paired t-test. The level of confidence was fixed at 0.05 level.

RESULTS OF THE STUDY

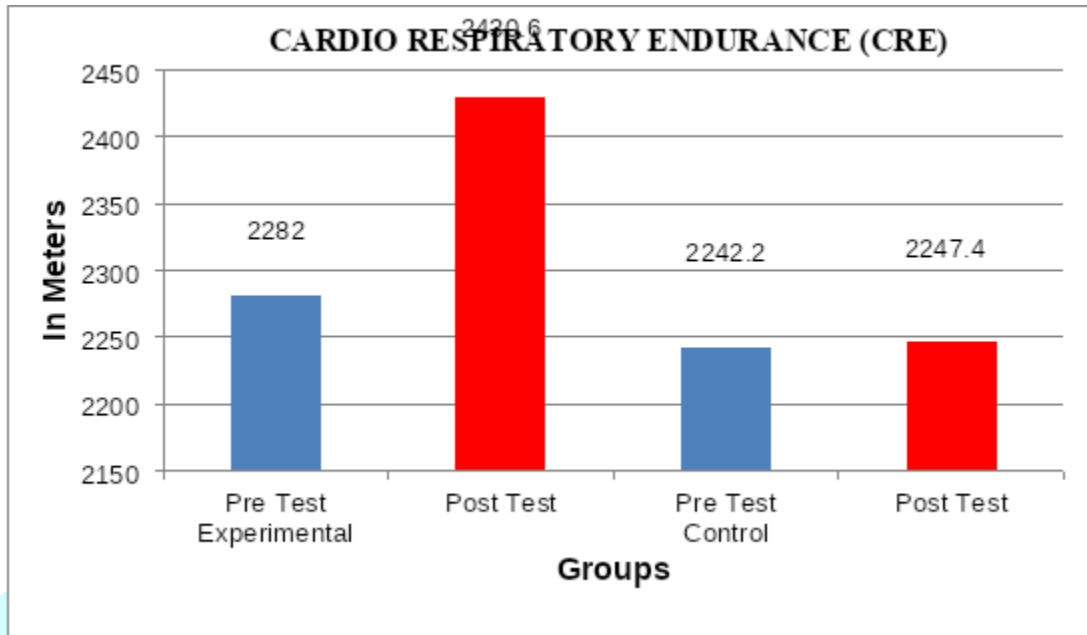
TABLE-I
COMPUTATION OF 'T'-RATIO BETWEEN THE PRE AND POST TESTS ON CARDIO
RESPIRATORY ENDURANCE OF EXPERIMENTAL AND
CONTROL GROUPS

Group	Test	M	SD	σ DM	DM	t-ratio	'p' value
Experimental	Pre Test	2282.0	203.61	19.31	148.51	7.69*	0.01
	Post Test	2430.6	184.46				
Control	Pre Test	2242.2	169.68	7.06	5.20	0.74	0.47
	Post Test	2247.4	168.76				

* significance at 0.05 level.

The table I indicates that there was a significant improvement on the cardio respiratory endurance through the asana training. It reveals that the obtained 'p' value 0.01 was lesser than the 0.05, level of confidence. So there was a significant improvement on the cardio respiratory endurance between the pre and post tests of experimental group, whereas the control group showed no significant improvement. Hence the results indicated that the significant improvement on the cardio respiratory endurance was due to the asana training alone.

**THE FIGURE SHOWING THE MEAN DIFFERENCE OF PRE AND POST-TESTS SCORES ON
CARDIO RESPIRATORY ENDURANCE OF
EXPERIMENTAL AND CONTROL GROUPS**



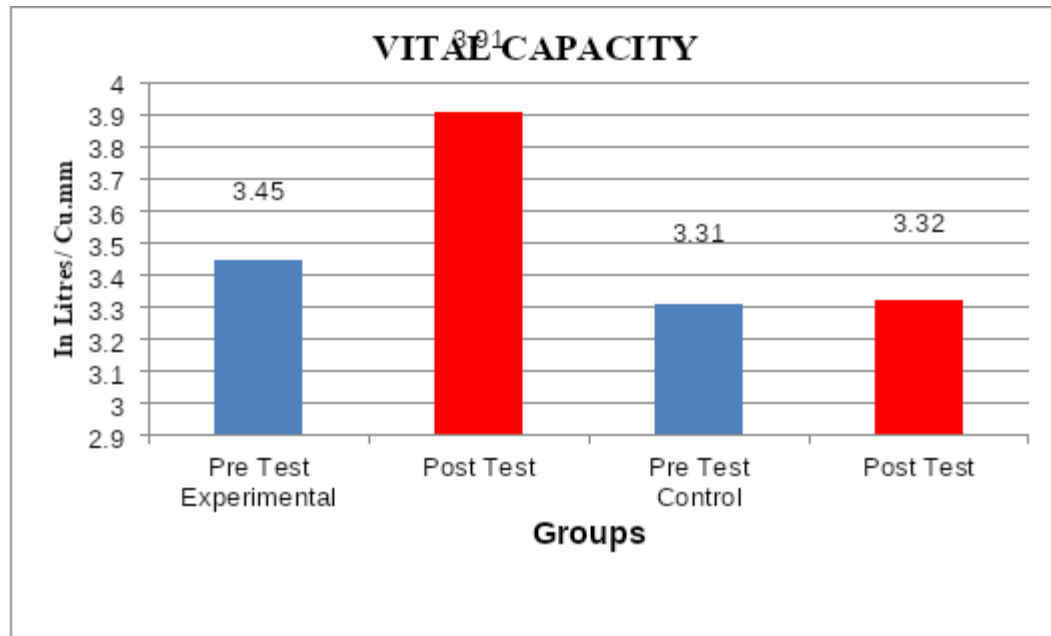
**TABLE-II
COMPUTATION OF ‘T’-RATIO BETWEEN THE PRE AND POST TESTS ON VITAL
CAPACITY OF EXPERIMENTAL AND CONTROL GROUPS**

Group	Test	M	SD	σ DM	DM	t-ratio	‘p’ value
Experimental	Pre Test	3.45	0.24	0.06	0.46	8.14*	0.01
	Post Test	3.91	0.08				
Control	Pre Test	3.31	0.46	0.04	0.01	0.20	0.85
	Post Test	3.32	0.44				

* significance at 0.05 level.

The table II indicates that there was a significant improvement on the Vital Capacity through the asana training. It reveals that the obtained t-ratio 8.14 was differ significantly because the ‘p’ value was lesser than the 0.05 level of confidence. So there was a significant improvement on the Vital Capacity between the pre and post tests of experimental group, whereas the control group showed no significant improvement. Hence the result indicated that the significant improvement on the Vital Capacity was due to the asana training alone.

THE FIGURE SHOWING THE MEAN DIFFERENCE OF PRE AND POST-TESTS SCORES ON VITAL CAPACITY OF EXPERIMENTAL AND CONTROL GROUP



DISCUSSION ON FINDINGS

The result of the study reveals that the twelve weeks of asana training on the selected dependent variables there was a significant improvement on the cardio respiratory endurance. It reveals that the obtained t-ratio 7.69 was significant because the 'p' value was lesser than the 0.05, level of confidence. So there was a significant improvement on the cardio respiratory endurance between pre and post tests of the experimental group, whereas the control group showed no significant improvement. Hence the result indicates that the significant improvement on the cardio respiratory endurance was due to the asana training alone. The result of the study is in consonance with the research done by Deepa S Rathod and Sakpal Hoovanna. (2017).

The result of the study reveals that the twelve weeks of asana training on the selected dependent variable there was a significant improvement on the Vital Capacity. It reveals that the obtained t-ratio 8.14 was significant because the 'p' value was lesser than the 0.05, level of confidence. So there was a significant improvement on the Vital Capacity between pre and post tests of the experimental group, whereas the control group showed no significant improvement. Hence the results indicated that the significant improvement on the Vital Capacity was due to the asana training alone. The result of the study is in consonance with the research done by Deepa S Rathod and Sakpal Hoovanna. (2017).

CONCLUSIONS

It was concluded that there was a significant improvement on the selected dependent physiological variables namely cardio respiratory endurance and Vital Capacity by the application of asana training.

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