



Effect of yoga practices on vital capacity of mild hypertension low intensity continuous training university college of physical education teachers in Kakatiya University, Telangana

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Abstract

The purpose of the study was to find out the effect of low intensity continuous training and yoga practices on vital capacity of mild hypertension college teachers. For this study, forty five mild hypertension college teachers from University College of Physical Education Teachers in Kakatiya University, Warangal. The subject's age ranged from 35 to 45 years. The subjects were divided into three groups one control and two experimental groups. The two experimental groups were subjected to a training programme for twelve weeks. Low intensity continuous training was administered to group I (n = 15), yoga practices was administered to group II (n = 15) and group III (n = 15) served as a control group. Test was conducted for vital capacity before and after twelve weeks training programme and data was collected and analyzed statistically by analysis of covariance to find out the significant level. Based on the result the study it was concluded that low intensity continuous training and yoga practices group significantly improved the vital capacity of mild hyper tension college teachers.

Keywords: vital capacity, walking, yogasanas, pranayama

Introduction

Minutes without resting intervals. It allows the body to work from its aerobic energy stores to improve overall fitness and endurance. It includes fat burning muscle building and increasing maximum aerobic potential. Continuous exercise is basically constant cardio. This particular exercise is a type of aerobic exercise that utilizes oxygen. Aerobic exercises maximize the amount of oxygen that runs through your blood. In addition, this exercise keeps you moving at a steady, constant pace. Continuous exercise is performed all at one time without any breaks in between. Continuous training is when low to mid-intensity exercises are performed for more than 20 Continuous training exercises include running. More specifically, long distance running is a prime example of continuous training. Walking and jogging are other similar exercises that are in the category of continuous exercise. Swimming is also considered to be a continuous exercise if it is done in a constant manner. Aerobic dancing, cycling, cross-country skiing, running on a treadmill and rowing machine exercise are all continuous exercises. Aerobic exercise improves the efficiency with which your respiratory system can supply oxygen to your body.

Your body needs a constant and generous amount of oxygen in order to function properly. In Sanskrit the word 'yoga' is used to signify any form of connection. Yoga is discipline to improve or develop one's inherent power in balanced manner. It offers the means to attain complete self-realization. Yoga can be defined as a means of uniting the individual spirit with the universal spirit of god, suppression of modification of the mind and the "union of the individual self with the universal self". Yoga can be a very beneficial therapy to lower high blood pressure naturally. A gentle, soothing practice of yoga stretches settles mind and body and reduces stress. Yoga

postures tend to switch on the parasympathetic nervous system, responsible for rest and repair, and turn off the sympathetic nervous system, used for the fight-or-flight stress response. Increased parasympathetic activity has a beneficial effect on many systems in the body, and allows the nervous system to become more balanced, freeing up the body's inherent healing response. Vital capacity is the maximum amount of air a person can expel from the lungs after a maximum inspiration (Donald, 1978). It is equal to the inspiratory reserve volume plus the tidal volume expiratory reserve volume (Koulouris, *et al.* 1995). A normal adult has a vital capacity between 3 and 5litres.

Statement of the problem

The purpose of the study was to investigate the effect of low intensity continuous training and yoga practices on vital capacity of mild hypertension college teachers.

Methodology

The sample for the present study consists of forty five mild hypertension college teachers from University College of Physical Education Teachers in Kakatiya University, Warangal. The subjects age ranged from 35 to 45 years and they were divided into three equal groups namely group I (Low intensity continuous training n = 15), Group II (yoga practices n = 15) and Group III (Control n = 15). Wet spirometer analyzed to find out vital capacity as physiological variable for this study. Group I, and II were giving training for a period of twelve weeks for 3 days per week in the morning session between 06 to 07 am. The training programme was administered for forty five minutes per session. Control group to did not undergo any training other than their regular work. The pre and post test were taken before and after the training

programme. Analysis of covariance was used to test the level of significance. Training programme
 Strolling (Slow walk)
 Aerobic (Brisk walk)
 Yogasanas
 Pranayama

Result and Statistical Techniques

The collected data from the three groups namely low intensity continuous training, yoga practices and control group on vital capacity were statistically examined by analysis of covariance and the level of significance was fixed as 0.05 level of confidence.

Table 1: Analysis of covariance for the data on vital capacity of experimental and control groups

Groups	Control group	Low intensity Continuous training group	Yoga Practices group	Source of variance	Sum of square	df	Mean square	F Ratio	Significant
Pre-test mean	2895	2875	2813	B	54361.11	2	27180.56	0.29	0.75
SD	339.14	337.14	235.63	W	3978833.33	42	94734.127		
Post-test mean	2780	2993.3	2990	B	448111.11	2	224055.56	2.78	0.07
SD	299.46	326.70	214.80	W	3395783.33	42	80851.98		
Adjusted post-test mean	2780	2993	2990	B	671939.09	2	335969.55	47.05*	0.00
SD				W	292753.37	41	7140.33		

* Significant at 0.05 level of confidence

Required table value at 0.05 level of confidence for 2 and 42, 2 and 41 degrees of freedom – 3.21 Above table I reveal that the pre test means in vital capacity of the control group is 2895, low intensity continuous training group is 2875, and yoga practices group is 2813 the ‘F’ ratio is 0.29 which is insignificant at 0.05 level of confidence. The post test means of the control group is 2780, low intensity continuous training

group is 2993.3 and yoga practices group is 2990 the ‘F’ ratio of post test means are 2.78. It shows that there is significance difference among the post test means at 0.05 level of confidence. The calculated ‘F’ ratio 47.05 is well above the table value. So it was significant at 0.05 level of confidence, there is significance difference among the three groups. Therefore the hypothesis has been accepted.

Table 2: Scheffe’s post HOC test to measure ordered adjusted vital capacity between control and experimental groups.

Control Group	Low intensity continuous training group	Yoga practices group	Mean difference	C.I
2780	2993		213*	
2780		2990	210*	77.79
	2993	2990	3	

* Significant at 0.05 level of confidence

Table 2 scheffe’s post hoc test showed that the mean difference between control group and low intensity continuous training group were 213, which is found to be significant at 0.05 level. The difference between the control group and yoga practices group were 210 which is significant. The difference between low intensity continuous training group and yoga practices group were 3 which is no significant at 0.05 level. Low intensity continuous training group and yoga practices group have influenced the vital capacity of the mild hypertension college teachers.

Discussion on Findings

The experimental groups were undergone low intensity continuous training and yoga practices which were assigned to them. From the analysis it is evident that there is significant change was noticed after twelve weeks of low intensity continuous training and yoga practices on vital capacity.

Conclusion

The low intensity continuous training and yoga practices will improve the vital capacity. After exercise body experiences immediate and more gradual effects. Essentially the body is becoming more conditioned and the entire cardiovascular system improves, therefore it does not need the extra residual volume. The minute start training, will notice more frequent muscle contraction, raised body temperature and pulse, and

deeper breathing. Longer-term effects occur as the body adapts to regular exercise, including heart getting larger, bones becoming denser and the vital capacity of breath deepening.

So continuous training and yogic exercises should actively for respiratory motion, the lungs get exercise, make full use of lung capacity, vital capacity increased, to provide more blood Oxygen. The more energetic daily chest movements can become a normal breathing method to be effective. The mechanism of these exercises is increase respiratory muscle Strength, improve lung elasticity, make breathing depth increase, enhance efficiency and function and improve lung breathing for mild hypertension, so as to improve vital capacity.

References

1. Anantharaman V. Yoga as a prophylactic Health Care, Yoga Mamansa. 28(1).
2. Bharagava R, Gogate MG, Mascarenhas JF. Automatic responses to breath holding and it pranayama, Indian J Physical Pharmacol. 1998; 32(4):257-264.
3. Brikel DA, Edgren L. Hatha yoga, Improved Vital capacity of college students Alteration Therapy Health Medecine. 1998; 6(6):55-63.