

EFFECT OF AEROBIC EXERCISES AND YOGIC PRACTICES ON TIDAL VOLUME AND VITAL CAPACITY AMONG MALE SOCCER PLAYERS

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Abstract

The purpose of present study was to find out the effect of aerobic exercises and yogic practices on tidal volume and vital capacity among male soccer players. To achieve this purpose, forty five soccer players, studying in various departments from Annamalai University, Chidambaram, Tamilnadu, in the age group of 19 - 25 years were selected as subjects. The selected forty five subjects were randomly divided into three groups of fifteen each, out of which group - I (n = 15) underwent aerobic exercise (continuous running) for three days (alternative days) per week, group - II (n = 15) underwent yogic practice for five days per week (Monday to Saturday) for twelve weeks and group – III (n = 15) remained as control. Prior to and after the training period the subjects were tested for, tidal volume and vital capacity. tidal volume and vital capacity assessed by using expirograph. The statistical tool were used for the present study is Analysis of covariance (ANCOVA). If obtained 'F' ratio is significant, Scheffe's test used as a post hoc test to find out the differences among the groups. The result of the study was a significant improvement on tidal volume and vital capacity after twelve weeks of aerobic exercises and yogic practices. However the improvement was favour of experimental groups. There was no significant difference was occurred between aerobic exercises and yogic practices group after twelve weeks of aerobic exercises and yogic practices.

Key Words:- *Aerobic Exercises, yogic Practices, Soccer, Tidal volume and Vital capacity.*

INTRODUCTION

Aerobic is something but nothing that relates or involves or requires free oxygen and moreover means the usage of oxygen that is sufficiently requisite to gather energy insistence while performing physical jerk by aerobic metabolism. The activities that can maximize intensity performance are maximally supported by aerobic metabolism and further they performed with added phase of duration.

Yoga is not an antique legend hidden in forgetfulness. It is the good number of precious in stupor. This is the necessary requirement of today and the traditions of tomorrow. It is an art of right living and, as such, is proposed to be included in daily life.

In the game of football, there are eleven players are played in each side of two sides or teams on a rectangular play field with goals of net at either end. The players shall drive the football into the opponent's goal by heading, kicking or using any part of the human body except the arms and hands.

STATEMENT OF THE PROBLEM

The purpose of present study was to find out the effect of aerobic exercises and yogic practices on tidal volume and vital capacity among male soccer players.

METHODOLOGY

To achieve this purpose, forty five soccer players, studying in various departments from Annamalai University, Chidambaram, Tamilnadu, in the age group of 19 - 25 years were selected as subjects. The selected forty five subjects were randomly divided into three groups of fifteen each, out of which group - I (n = 15) underwent aerobic exercise (continuous running) for three days (alternative days) per week, group - II (n = 15) underwent yogic practice for five days per week (Monday to Saturday) for twelve weeks and group - III (n = 15) remained as control. Prior to and after the training period the subjects were tested for, tidal volume and vital capacity. tidal volume and vital capacity assessed by using expirograph.

ANALYSIS OF DATA

The data collected prior to and after the experimental periods tidal volume and vital capacity on aerobic exercises and yogic practices and control group were analyzed and presented in the following table –I

Table-I

Analysis of covariance of aerobic exercises and yogic practices and control groups

Variable Name	Group Name	Aerobic Exercises	Yogic Practices	Control Group	F ratio
Tidal Volume	Pre-test Mean ± S.D	0.553 ± 0.02	0.546 ± 0.015	0.554 ± 0.016	0.98
	Post-test Mean ± S.D.	0.602 ± 0.016	0.600 ± 0.017	0.547 ± 0.018	45.82*
	Adj.Post-test Mean ± S.D.	0.601	0.600	0.545	114.5*
Vital Capacity	Pre-test Mean ± S.D	4.15 ± 0.085	4.089 ± 0.07	4.11 ± 0.115	1.67
	Post-test Mean ± S.D.	4.31 ± 0.091	4.27 ± 0.08	4.10 ± 0.103	22.20*
	Adj.Post-test Mean ± S.D.	4.281	4.289	4.105	73.78*

Significant at .05 level of confidence

**(The table value required for significance at .05 level of confidence with df 2 and 42 and 2 and 41 were 3.22 and 3.23 respectively.)*

RESULTS

From the Table-I it is clear that aerobic exercises and yogic practices increases tidal volume and vital capacity when compare with control group.

Further to determine which of the paired means has a significant improvement, Scheffë S test was applied as post-hoc test. The result of the follow-up test is presented in Table – II.

Table – II

Scheffé S test for the difference between the adjusted post-test mean of tidal volume and vital capacity on aerobic exercises and yogic practices and control group

Aerobic Exercises	Yogic Practices	Control Group	Mean Difference	Confidence interval at .05 level
Adjusted post-test mean of tidal volume				
0.601		0.545	0.056*	0.019
0.601	0.600		0.001	0.019
	0.600	0.545	0.055*	0.019
Adjusted post-test mean of vital capacity				
4.281		4.105	0.176*	0.019
4.281	4.289		0.008	0.019
	4.289	4.105	0.184*	0.019

* Significant at 0.05 level of confidence.

Both aerobic exercises and yogic practices increases tidal volume and vital capacity when compare with control.

CONCLUSIONS

From the analysis of the data, the following conclusions were drawn.

Both, yogic practices group and aerobic exercises group have improved their tidal volume and vital capacity when compared with the control group. Syed Hojjat et.al., (2016) found that there was a high tidal volume and vital capacity after the yogic practices and aerobic exercises programme. Madanamohan et.al., (1992), Shyamkarthick et.al., (2014), Havesepian et.al., (2013) and Shinde and KJ (2013) has recommended from his research work that there was a high improvement in tidal volume and vital capacity after the yogic practices and aerobic exercises programme. In addition, the results of the tests shows that there was no significant difference between experimental groups.

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