



EFFECT ON COMBINATION OF YOGA WITH CALISTHENICS EXERCISE AND THEIR IMPACT ON SELECTED PHYSICAL VARIABLES AMONG SCHOOL LEVEL FOOTBALL PLAYERS

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ABSTRACT The purpose of this study was to find out the isolated and combination of Yoga with Calisthenics Exercise and Yoga practice and Calisthenics Exercise and their influence on performance variables among school level football players. In this there are total of 60 school boys age of 13-15 years be selected at random from Trichy, Tamil nadu, INDIA. They will be assigned into four groups equal groups, Group 1 to be served as yogic with calisthenics exercise (Experimental Group 1), Group 2 yoga practice (Experimental Group 2) and group 3 is with calisthenics exercise (Experimental group 3) fourth one as control group The combination of yoga with calisthenics exercise and yogic practice and calisthenics exercise were considered as independent variables. The following dependent variables were selected for this study speed and endurance. The duration of the training period was restricted five days per week to 12 weeks. The level of significance was fixed at 0.05 level, which was considered to be appropriate. The data was collected immediately after the training period.

KEYWORDS : Calisthenics Exercise And Yogic Practices And Football

INTRODUCTION

Soccer is the world's most popular form of sport, being played in every nation without exception. The most widespread code is association football or soccer. The sport has a rich history though it was formalized as we know it today by the establishment of the Football Association in 1863. The game soon spread to continental European countries and later to South America and the other continents. The world's governing body, the Federation of the International Football Association (FIFA), was set up in 1904 and the first Olympic football competition was held four years later. (Thomas Reilly, 1996) Soccer is a fast paced game based as much as strategies and split second decisions as on quickness, strength, accuracy and endurance. Soccer, as a relatively simple game to play and understand, holds and unparalleled reach into the hearts and minds of people around the world.

A Sport that requires little in terms of technical equipment to play. Soccer has been called "the beautiful game" as well as "the simplest game". We can all identify with the description "the beautiful game" quality soccer is beautiful. Soccer matches last 90 minutes and the pattern of activity in this time can be expressed as work-rate profiles. These may be determined by methods of motion analysis which give useful pointers to the physical stresses imposed by match-play. Although the physical demands of soccer may vary according to the system of play or tactics employed. Physiology is the science of the functioning of living systems. It is a subcategory of biology. In physiology, the scientific method is applied to determine how organisms, organ systems, organs, cells and biomolecules carry out the chemical or physical function that they have in a living system. The physical effects of exercise are fairly well known. When a large muscle group goes into action, it requires an increased supply of food together with an increased supply of oxygen for the conversion of the food into energy. It requires also a more rapid disposal of waste products. Heart and lungs together speedup their action in order to meet these demands. Because of this heightened organic activity, Assimilation is accelerated, digestion improved and general nutrition heightened as evidenced in improved appetite and a loss of body fat. Keeping pace with these nutritional demands, elimination by means of kidneys, lungs, intestines and skin is increased. These effects are made possible which controls organic activity. Thus circulatory-respiratory-digestive-excretory-nervous systems are involved in simple muscular activity. The vitality of the organic system of the body depends throughout on muscular activity.

METHODOLOGY

In this chapter, the selection of subjects, experimental design, selection of variables, selection of tests, instruments reliability, reliability of the data, pilot study, orientation of the subjects, training programme, test administration, collection of the data and statistical procedure have been explained

The purpose of the study is to find out the effects of combination of yoga with calisthenics exercise and yogic practice and calisthenics exercise on selected physical variables of among school level football

players. sixty healthy, untrained students were selected from Trichy, Tamil nadu, INDIA the subject's age ranged from 13 to 15 years.

The selected subjects were divided into four groups with fifteen subjects in each group selected randomly, with three experimental groups and one control group. Experimental Group I underwent the yogic with calisthenics exercise. Experimental Group II underwent the selected yoga practice Experimental Group III underwent the selected with calisthenics exercise programme and Group IV Control group. The training periods of experimental groups were 12 weeks, five days per week with duration of 60 minutes. Control group did not undergo any training programme rather than their routine work.

Speed and endurance, the distance of all running were measured to the timing distance was recorded in seconds

TABLE - I

S.NO.	VARIABLES	TEST ITEMS	UNITS
1	Endurance	12 MIN COOPER TEST	mts

YCE=Yoga with Calisthenics Exercise

YP=Yogic Practices,

CE=Calisthenics Exercise

CG=control group

Table-II Summary of Descriptive Statistics on Selected physical Variables speed and endurance among Volleyball Players

	Variables	YCE	YP	CE	CG
		Endurance	Endurance	Endurance	Endurance
1	Pre-Test Mean	1641	1641.2	1643	1642.2
2	Post-Test Mean	1939.8	1887.267	1893.267	1643
3	T-test	6.1403*	5.0265*	1.0160*	0.4052

*significance at 0.05 level of confidence

Table – II shows that the mean value of pre test and post test of a control group of Endurance were 1642.2 and 1643 respectively. The obtained 't' ratio on Endurance is **0.4052*** since the obtained 't' ratio was less than the required table value of 3.49 the significant at 0.05 level with (1, 59) degree of freedom it was found to be statistically insignificant. The mean values of pre-test and post-test of experimental-1 group on Endurance were 1641 and 1939.8 experimental-2 group on Endurance were 1641.2 and 1887.26 experimental-3 group on Endurance were 1643 and 1893.26 respectively. The obtained 't' ratio was 3.49 since the obtained 't' ratio was greater than the required table value of 3.49 for significance at 0.05 level with (1, 59) degree of freedom it was found to be statistically significant. The result of the study showed that there was a significant difference between control group and experimental group in Vital Capacity It may be conclude that from the result of the study the experimental group improves endurance .due to 12 week of training.

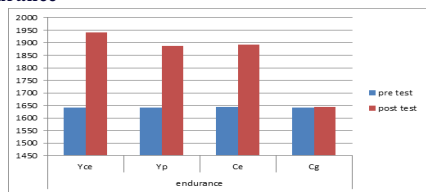
Submitted : 24th April, 2019

Revised: 11th May, 2019

Accepted : 9th August, 2019

Publication : 01st October, 2019

Figure-II Shows the Mean Values of T-test pre and post for Yoga with Calisthenics Exercise, yoga practice and calisthenics exercise Group on physical I variables among football Players for speed and endurance



RESULTS AND DISCUSSION

Table – I Analysis of covariance for the pre, test means values Yoga with Calisthenics Exercise, Yogic Practices, Calisthenics Exercise and control group on Endurance

Variable Endurance	YCE	YP	CE	CG	Source of Variance	Sum of Squares	Df	Mean Squares	Obtained 'F' ratio
Pre test Mean	1641.00	1641.20	1643.20	1642.85	Between	38.850	3	12.950	0.117*
					Within	6192.80	56	110.586	
Post Test Mean	1939.80	1887.26	1893.26	1643.00	Between	807566.067	3	269188.689	443.549*
					Within	33986.267	56	606.898	

*Significant at 0.05 level of confidence / Table value is 2.56

The table 1 showed that the pre-test mean values on Endurance of control group yoga with Callisthenes, yoga practice , calisthenics exercise, group is 1641.00, 1641.20, 1643.20 and 1642.85 respectively. The obtained 'F' ratio 0.117* for pre-test mean was less than the table value 2.76 for df 3 and 56 required for significance at 0.05 level of confidence on Endurance. The post-test mean values on Endurance of control group, yoga with Callisthenes, yoga practice , calisthenics exercise, is 1939.80,1887.26,1893.26 and 1643.00 respectively. The obtained 'F' ratio 443.549 for post-test mean was greater than the table value 2.76 for df 2 and 56 required for significance at 0.05 level of confidence. on endurance

Table – V Analysis Of Covariance For The Adjusted Post, Test Means Values Yoga With Calisthenics Exercise, Yogic Practices, Calisthenics Exercise And Control Group On endurance

Variable	YCE	YP	CE	CG	Source of Variance	Sum of Squares	Df	Mean Squares	Obtained 'F' ratio
Endurance	1940.20	1887.57	1893.26	1643.00	Between	80766.067	3	269188.689	443.549
					Within	3398.267	56	606.898	

The adjusted post-test means of control group, yoga with calisthenics yogic practices group and speed group 1940.20, 1887.57, 1893.26, 1643.00 respectively. The obtained 'F' ratio **443.549*** for adjusted post-test mean was greater than the table value 2.76 for df 3 and 55 required for significance at 0.05 level of confidence **Endurance**. Since the obtained 'F' ratio value was significant further to find out the paired mean difference, the Scheffe's post hoc test was employed and presented in table-2

In table IV, the results of analysis of covariance of adjusted post test scores on **speed** (209.945), **endurance** (443.549), were greater than the table value of 2.76 indicating that it was significant for the degrees of freedom (3,55) and (3,56) at 0.05 level of confidence

Figure-III Shows that the speed and endurance Mean Values of F-test of adjusted post test for Yoga with Calisthenics Exercise Group on physical variables among football Players

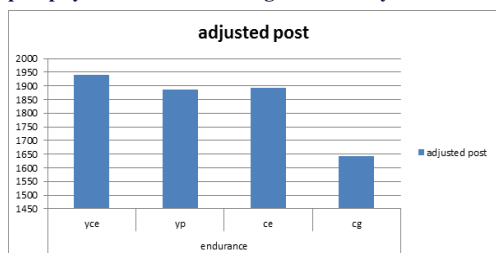


Table-IV The scheffe's post hoc test for the difference between paired means on speed (Scores in meters)

Means					
YCE	YP	CE	CG	Mean Difference	Required CI
1940.20	1887.57	-	1643.00	52.43*	2.0993*
1940.20	1887.57	1892.72	1643.00	47.28*	
1940.20	1887.57	1892.72	1642.83	297.17*	
1940.20	1887.57	1892.72	1642.83	5.15*	
1940.20	1887.57	1892.72	1642.83	244.74	
1940.20	1887.57	1892.72	1642.83	252.89*	

Statistical Technique

To study the effect of yoga with calisthenics exercise and yogic practice and calisthenics exercise and control group and to find out the significant mean differences among them, the analysis of covariance (ANCOVA) technique was employed. To study the effect of school level football players of calisthenics exercise and yogic practice and calisthenics exercise group and to find out the mean difference, the Analysis of Covariance technique was employed.

Figure-III Shows that the endurance of Mean Values of F-test pre and post for Yoga with Calisthenics Exercise Group on physical variables among football Players

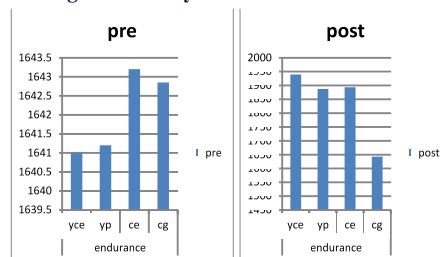


Table – V Analysis Of Covariance For The Adjusted Post, Test Means Values Yoga With Calisthenics Exercise, Yogic Practices, Calisthenics Exercise And Control Group On endurance

Variable	YCE	YP	CE	CG	Source of Variance	Sum of Squares	Df	Mean Squares	Obtained 'F' ratio
Endurance	1940.20	1887.57	1893.26	1643.00	Between	80766.067	3	269188.689	443.549
					Within	3398.267	56	606.898	

*Significant at 0.05 level of confidence

Figure 1

Bar diagram showing the pre, post and adjusted post test mean values of control group, with calisthenics exercise and yogic practice and calisthenics exercise on endurance (scores in meters)

CONCLUSIONS

1. There was a significant difference between three experimental group and control group on speed. Due to with calisthenics exercise and yogic practice there was a significant positive improvement on speed

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