



AN IMPACT OF ISOLATED AND COMBINED YOGIC TRAINING, PRANAYAMA PRACTICES ON CARDIO RESPIRATORY ENDURANCE OF INTER-COLLEGIATE WOMEN PLAYERS

KEYWORDS

Yogic training, Continuous Running, Combined yogic training and Continuous Running, Cardio Respiratory Endurance

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ABSTRACT

Purpose: The present study was designed to find out the effect of isolated and combined yogic training, pranayama practices on Cardio Respiratory Endurance performance of inter-collegiate men Hockey players. **Subjects:** For this purpose sixty (N=60) women players who were studying various Colleges affiliated to Alagappa University, Karaikudi, Sivagangai District, Tamilnadu during the year 2014-2015 were selected randomly as subjects. The subjects were assigned at random into four groups of fifteen each (n=15) namely, Yogic training, Pranayama Practices, Combined Yogic Training and Pranayama Practices and Control group. Group-I underwent Yogic Training, Group-II underwent Pranayama Practices, Group-III underwent Combined Yogic Training and Pranayama Practices and Group-IV acted as Control. **Training:** The duration of the training period for all the three Experimental groups was restricted to twelve weeks and the number of sessions per week was confined to three in a week. For Combined Yogic Training and Continuous Running, the training period was restricted to alternative weeks for twelve weeks. **Variables:** The dependent variable selected for this study was Cardio Respiratory Endurance. **Test:** Cardio Respiratory Endurance was assessed by Coopers 12 Minutes Run/walk test. All the subjects were tested prior to and immediately after the training for all the selected variables. **Statistics:** Data were collected and statistically analyzed using ANCOVA. Scheffe's post hoc test was applied to determine the significant difference between the paired means. In all the cases 0.05 level of significance was fixed. **Results:** The results of the study showed that there was a significant difference among all the Experimental groups namely Yogic training, Pranayama Practices and Combined Yogic training and Pranayama Practices groups. Further the results of the study showed that combined yogic training and Continuous Running group was found to be better than the Yogic training group and Continuous Running group in Cardio Respiratory Endurance.

INTRODUCTION

Yoga means "to unite". Primarily an exercise in moral and mental cultivation of poses and practices aims towards harmonizing your mind, body and soul to achieve a state of oneness with the universe. It's a spiritual practice that does not subscribe nor promote any particular faith; hence it can be practiced by all. A lifestyle choice by many, the universally timeless philosophies of yoga can be incorporated into any belief system. Stress, anxiety, ill-health, unhappiness and anger can be transformed into peacefulness, vibrant health, service and love towards all creations. The techniques are important in this process but the goal should be kept firmly in mind (Iyengar, 1981).

The word 'Yoga' is derived from the Sanskrit root 'Yuj' (to Join, to use, to concentrate one's attention on) also means to bind, join, attach and yoke to direct and concentrate one's attention on to strengthen, to use and apply. Yoga is one of the six orthodox systems of Indian Philosophy. It was collated, co-ordinated and systematized by Patanjali (The pro-pounder of Yoga Philosophy) in his classical work, 'The Yoga Sutras', which consists of 185 terse aphorisms. The System of Yoga is called so because it teaches the means by which the individual soul can be united to or be in communion with the God, and so secures liberation/salvation. One who follows the path of Yoga is a Yogi.

The word Pranayama has been formed by the combination of two Sanskrit terms Prana and Ayama. Both these terms have very many different meanings and depending upon which of this meaning is chosen, the whole connotation of the word Pranayama would change.

Pranayama removes veil of ignorance, untruth, and afflictions from the mind. The refined mind thus progresses towards the higher stages of Yog, i.e. meditation and Samadhi (Acharya, 2010).

Pranayama is a system of rhythmic breathing, which strengthens the lunge, normalizes blood circulation, thereby curing all diseases and giving longevity.

METHODOLOGY

The study was conducted on sixty (N=60) women Players who have

studying various colleges affiliated to Alagappa University, Karaikudi, Sivagangai District, Tamilnadu during the year 2014-2015 were selected randomly as subjects. Subjects were randomly assigned equally into four groups. Group-I underwent Yogic training, Group-II underwent Pranayama Practices, Group-III underwent combined yogic training and Pranayama Practices and Group-IV acted as Control. The experimental groups underwent the respective training for a period of 12 weeks (3 days/week), the Combined yogic training and Continuous Running the training period was restricted to alternative weeks for twelve weeks whereas the control remain as normal with the sedentary life. Cardio Respiratory Endurance only selected as dependent variable and it was assessed through Coopers 12 Minutes run/walk test. All the four groups were tested on selected Cardio Respiratory Endurance was analyzed before and after the training period.

ANALYSIS OF THE DATA

The data collected from the experimental groups and control group on prior and after experimentation on selected variables were statistically examined by analysis of covariance (ANCOVA) was used to determine differences, if any among the adjusted post test means on selected criterion variables separately. Whenever they obtained f-ratio value in the simple effect was significant the Scheffe's test was applied as post hoc test to determine the paired mean differences, if any. In all the cases 0.05 level of significance was fixed.

The Analysis of covariance (ANCOVA) on Cardio Respiratory Endurance of Experimental Groups and Control group have been analyzed and presented in Table-1.

Table - 1 Values of Analysis of Covariance for Experimental Groups and Control Group on Cardio Respiratory Endurance

Certain Variables	Adjusted Post test Means				Source of Variance	Sum of Squares	df	Mean Squares	F' Ratio
	Yogic Training Group	Pranayama Practices Group	Combined Yogic Training and Pranayama Practices Group	Control Group					

Cardio Respiratory Endurance	2345.23	2434.45	2526.30	2166.02	Between	10567053	352235.30	58.13*
					With in	333242.85	556058.96	

*Significant at .05 level of confidence
(The table value required for Significance at 0.05 level with df 3 and 55 is 2.77)

Table-1 shows that the adjusted post test mean value of Cardio Respiratory Endurance for Yogic training group, Pranayama Practices group, Combined Yogic training and Pranayama Practices group and Control group is 2345.23, 2434.45, 2526.30 and 2166.02 respectively. The obtained F-ratio of 58.13 for the adjusted post test mean is more than the table value of 2.77 for df 3 and 55 required for significance at 0.05 level of confidence.

The results of the study indicate that there are significant differences among the adjusted post test means of Experimental groups on the decrease of Cardio Respiratory Endurance.

To determine which of the paired means had a significant difference, Scheffe's test was applied as Post hoc test and the results are presented in Table-2.

Table - 2 The Scheffe's test for the differences between the adjusted post tests paired means on Cardio Respiratory Endurance

Certain Variables	Adjusted Post test Means				Mean Difference	Confidence Interval
	Yogic Training Group	Pranayama Practices Group	Combined Yogic Training and Pranayama Practices Group	Control Group		
Cardio Respiratory Endurance	2345.23	2434.45			89.21*	81.93
	2345.23		2526.30		181.07*	81.93
	2345.23			2166.02	179.21*	81.93
		2434.45	2526.30		91.86*	81.93
		2434.45		2166.02	268.43*	81.93
			2526.30	2166.02	360.28*	81.93

*Significant at .05 level of confidence
Table-2 shows that the adjusted post test mean differences on Cardio Respiratory Endurance between Yogic Training group and Pranayama Practices group, Yogic training group and Combined Yogic training and Pranayama Practices group, Yogic training group and Control group, Pranayama Practices group and Combined Yogic training and Pranayama Practices group, Pranayama Practices group and Control group, Combined Yogic training and Pranayama Practices group and Control group are 89.21, 181.07, 179.21, 91.86, 268.43 and 360.28 respectively and they are greater than the confidence interval value 81.93, which shows significant differences at 0.05 level of confidence.

The results of the study further have revealed that there is a significant difference in Cardio Respiratory Endurance between the adjusted post test means of Yogic Training group and Pranayama Practices group, Yogic training group and Combined Yogic training and Pranayama Practices group, Yogic training group and Control group, Pranayama Practices group and Combined Yogic training and Pranayama Practices group, Pranayama Practices group and Control

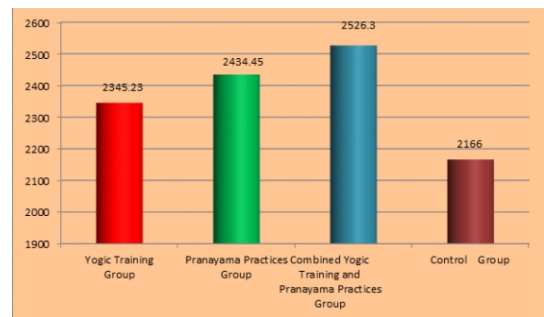
group, Combined Yogic training and Pranayama Practices group and Control group.

However, the increase in Cardio Respiratory Endurance was significantly higher for Combined Yogic training and Pranayama Practices group than other Experimental groups.

It may be concluded that the Combined Yogic training and Pranayama Practices group has exhibited better than the other experimental groups in increasing Cardio Respiratory Endurance.

The adjusted post test mean value of Experimental groups on Cardio Respiratory Endurance is graphically represented in the Figure -1.

Figure-1 Bar diagram on ordered adjusted means of Cardio Respiratory Endurance



CONCLUSION

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

1. Significant differences in achievement were found between Yogic training group, Pranayama Practices group, Combined Yogic training and Pranayama Practices group and Control group in the selected criterion variable such as Cardio Respiratory Endurance.
2. The Experimental groups namely, Yogic training group, Pranayama Practices group and Combined Yogic training and Pranayama Practices group had significantly improved in Cardio Respiratory Endurance.
3. The Combined Yogic training and Pranayama Practices group was found to be better than the Yogic training group, Pranayama Practices group and Control group in increasing Cardio Respiratory Endurance.

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