



Effect of Physical Combined Physical Cum Yogic Practices on Speed and Agility of Kabaddi Players

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Abstract

The purpose of the present study was to find out the effect of physical combined physical cum yogic practices on selected speed and agility of kabaddi players. To achieve the purpose of the present study, forty five inter-collegiate level kabaddi players were selected as subjects at random and their age ranged from 18 to 24 years. The subjects were divided into three equal groups. The study was formulated as a true random group design, consisting of a pre-test and post-test. The subjects (N=45) were randomly assigned to three equal groups of fifteen men students each. The groups were assigned as physical exercises group (PEG), combined physical cum yogic practices group (PCYPG) and control group (CG) in an equivalent manner. The physical exercises group and combined physical cum yogic practices group participated for a period of twelve weeks and the post-tests were conducted. The training programme was scheduled at 6.30 to 7.30 am for alternate three days in a week for both the groups. The variable to be used in the present study was collected from all subjects before they have to treat with the respective treatments. It was assumed as pre-test. After completion of treatment they were tested again as it was in the pre-test on all variables used in the present study. This test was assumed as post-test. Analysis of covariance (ANCOVA) was used to test the adjusted mean difference among the three groups. When the adjusted post test was significant, the Scheffe's post-hoc test was used to find out the paired mean differences. Findings on speed and agility physical exercises group influences more than the combined physical cum yogic practices group.

Keywords: Yogic Practices, Speed, Agility, Kabaddi.

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Introduction

Yoga is one of India's wonderful gifts to mankind. One of its valuable qualities is that it builds up a store of physical health through the practice of a system of exercises called asanas which keep the body cleansed and fit. Yoga believes that exercise is essential for speedy removal of toxins and for keeping blood circulation and all internal processes functioning smoothly. Yoga is a science and it is based on observation and experiment. This method of observation and experiment is regarded in the west as a distinctly modern innovation, but as a matter fact it was adopted in India in very ancient time by the 'ishis. Through the process of close observation and constant experiment they discovered the fine forces of nature, as also the laws that govern our physical, mental and spiritual being. Physical training is any bodily activity that enhances or maintains physical fitness and overall health (Chandrasekaran, 1999). Physical fitness is the functioning of the heart, blood vessels, lungs, and muscles to function at optimum efficiency. In previous years, fitness was defined as the capacity to carry out the

day's activities without undue fatigue.

Kabaddi is a combative team game, played with absolutely no equipment, in a rectangular court, either out-doors or indoors with seven players on the ground in each side. Each side takes alternate chances at offence and defense. The basic idea of the game is to score points by raiding into the opponents' court and touching as many defense players as possible without getting caught on a single breath. During play, the players on the defensive side are called "Antis" while the player of the offense is called the "Raider". Kabaddi is perhaps the only combative sport in which attack is an individual attempt while defense is a group effort. The attack in Kabaddi is known as a 'Raid'. The antis touched by the raider during the attack are declared 'out' if they do not succeed in catching, the raider before he returns to home court. These players can resume play only when their side scores points against the opposite side during their raiding turn or if the remaining players succeed in catching the opponent's raider (Prasad, 2002).

Methodology

The purpose of the present study was to find out the effect of physical combined physical cum yogic practices on selected speed and agility of kabaddi players. To achieve the purpose of the present study, forty five inter-collegiate level kabaddi players were

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Results

Table I. Descriptive analysis of initial, final and adjusted means of physical combined physical cum yogic practices and control group on criterion measures

S.No	Variables	Physical Exercises Group			Combined Physical cum Yogic Practices Group			Control Group		
		Initial Mean	Final Mean	Adjusted Mean	Initial Mean	Final Mean	Adjusted Mean	Initial Mean	Final Mean	Adjusted Mean
1	Speed	7.36	7.09	7.05	7.45	7.07	7.10	7.42	7.39	7.38
2	Agility	16.13	14.23	14.09	16.16	14.12	14.20	15.96	15.95	15.99

Table II. Summary of analysis of variance for the initial means among physical combined physical cum yogic practices, and control group on criterion variables

Sl. No	Variables	Source of variation	Sum of Squares	df	Mean Squares	F-value
1	Speed	Between Sets	0.06	2	0.03	0.26
		Within Sets	4.82	42	0.12	
2	Agility	Between Sets	0.35	2	0.17	0.32
		Within Sets	22.60	42	0.54	

The F-value obtained from testing the initial means among the three groups on the criterion measures were shown in table III, the corresponding 'F' values needed for significance at 0.05 level of confidence was 3.21. The calculated 'F' values are speed (0.26) and agility (0.32). Since the observed F-values of these were found lesser than the required table value of 3.21 at 0.05

level of confidence, the observed mean difference among the physical exercises, combined physical cum yogic practices and control group on criterion measures was statistically not significant. Thus the obtained results confirm the random assignment of subjects to three groups was successful.

Table III. Summary of analysis of variance for the final means among physical combined physical cum yogic practices and control group on criterion variables

Sl. No	Variables	Source of Variation	Sum of Squares	df	Mean Squares	F-value
1	Speed	Between Sets	0.94	2	0.47	15.82*
		Within Sets	1.25	42	0.03	
2	Agility	Between Sets	31.44	2	15.72	36.25*
		Within Sets	18.22	42	0.43	

The F-value obtained from testing the final means among the three groups on the criterion measures were shown in table IV, the corresponding 'F' values needed for significance at 0.05 level of confidence was 3.21. The calculated 'F' values are speed (15.82) and agility (36.25). Since the observed F-values of these

were found greater than the required table value of 3.21 at 0.05 level of confidence, the observed mean difference among the physical exercises, combined physical cum yogic practices and control group on criterion measures was statistically significant.

Table IV. Summary of analysis of variance for the adjusted means among physical combined physical cum yogic practices and control group on criterion variables

Sl. No	Variables	Source of Variation	Sum of Squares	df	Mean Squares	F-value
1	Speed	Between Sets	0.93	2	0.46	21.08*
		Within Sets	0.90	41	0.02	
2	Agility	Between Sets	33.33	2	16.66	44.53*
		Within Sets	15.34	41	0.37	

The F-value obtained from testing the adjusted means among the three groups on the criterion measures were shown in table V, the corresponding 'F' values needed for significance at 0.05 level of confidence was 3.22. The calculated 'F' values are speed (21.08) and agility (44.53). Since the observed F-values of these were found greater than the required table value of 3.22 at 0.05 level of confidence, the observed mean difference among the physical exercises, combined physical cum

yogic practices and control group on criterion measures was statistically significant. It is evident that the criterion measures are influenced by interventions used in the study. Since the observed mean difference among the three groups was statistically significant. In order to find out which of the pairs of group grown up for the significant difference the Scheffe post-hoc test was applied. The results of the same were given in table –V.

Table V. Scheffe's test of significance between paired final adjusted means for physical variables

Sl.No	Physical Variables	Adjusted Means			Mean Differences	CI Value
		Physical Exercises	Combined Physical cum Yogic Practices	Control		
1	Speed	7.05	7.10	-----	0.05	0.13
		7.05	-----	7.38	0.33*	
		-----	7.10	7.38	0.28*	
2	Agility	14.09	14.20	-----	0.11	0.49
		14.09	-----	15.99	1.90*	
		-----	14.20	15.99	1.79*	

As per the results of the table -VI, since the mean difference for speed and agility between physical exercise and control group were 0.33 and 0.28 respectively, combined physical cum yogic practices and control group were 1.90 and 1.79 respectively are higher than the CI value of 0.13 and 0.49 respectively. It was concluded that the observed adjusted mean difference is

statistically significant. Since the mean difference for speed and agility between physical exercise and combined physical cum yogic practices groups were 0.05 and 0.11 are lesser than the CI value of 0.13 and 0.49 respectively. It was concluded that the observed adjusted mean difference is statistically not significant.

Figure I. Bar diagram showing the mean values of physical, combined physical cum yogic practices and control group on speed

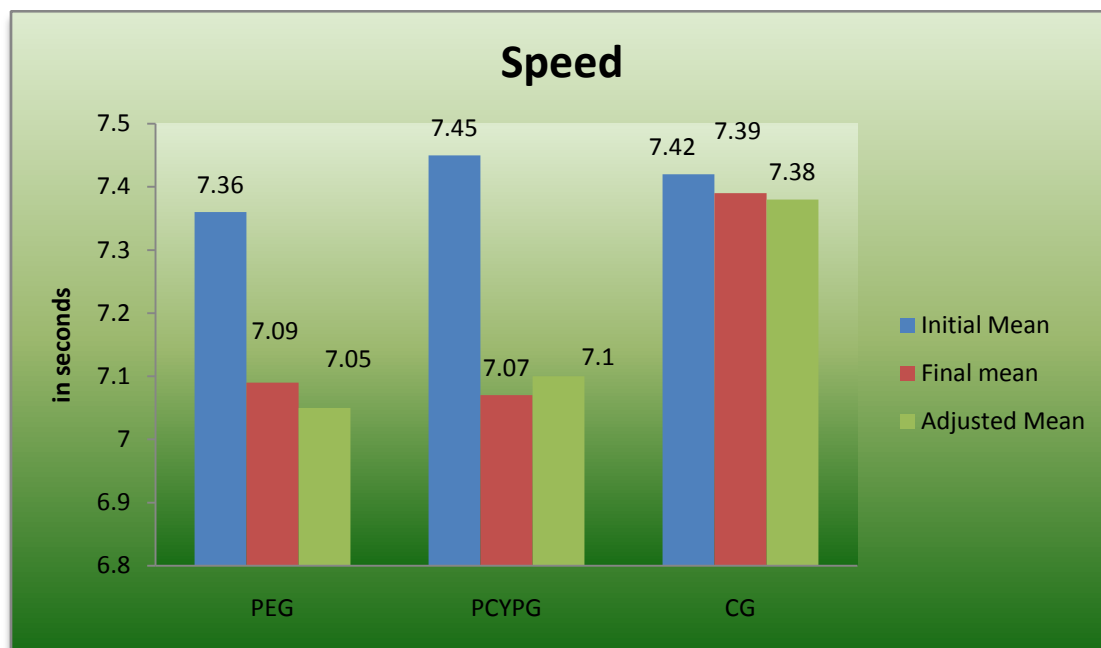
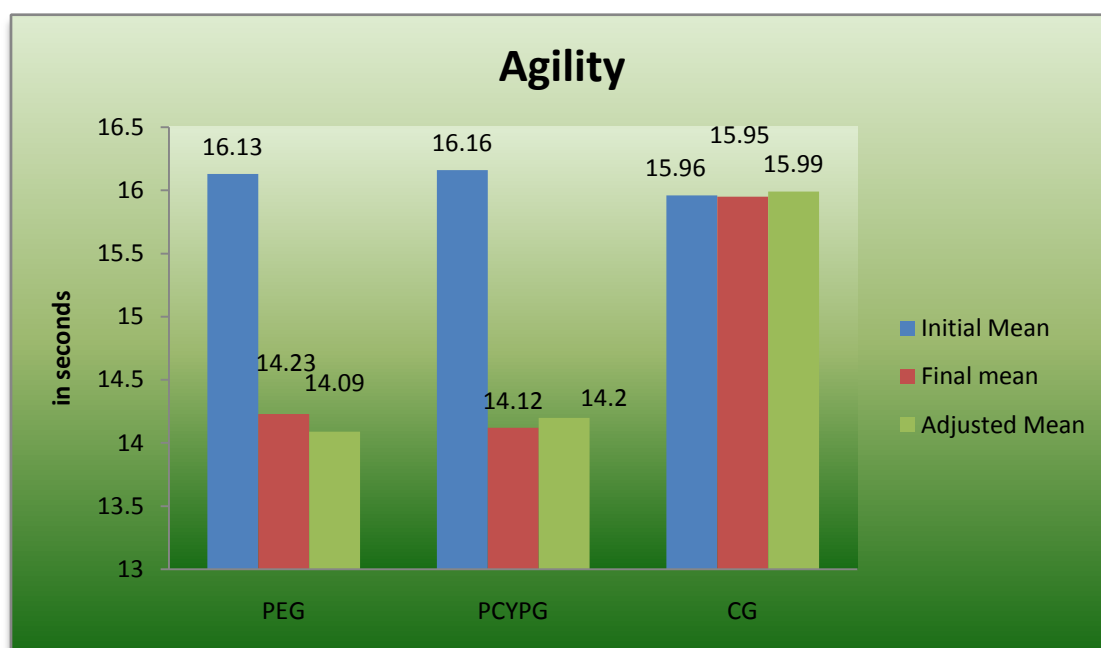


Figure II. Bar diagram showing the mean values of physical, combined physical cum yogic practices and control group on agility



Conclusions

- Findings on speed and agility physical exercises group influences more than the combined physical cum yogic practices group.
- From this it was concluded that due to resemblances in physical training are having chances to develop the physical factors.

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