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EFFECTS OF YOGA PRACTICE WITH MEDICINE BALL EXERCISES ON MOTOR FITNESS OF INTER COLLEGIATE KABADDI PLAYERS

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ABSTRACT

This study was designed to the investigate the influence of Effects of Yoga Practice with Medicine Ball Exercises on Motor Fitness of Inter Collegiate Kabaddi Players. To achieve the purpose of the study (N=45) forty five college level male kabaddi players were randomly selected from Kovai Kalaimagal College of Arts and Science, Coimbatore, as subjects. Their age ranged between 18 and 24 years. They were divided into three equal groups, each group consisted of fifteen subjects, in which experimental group - I underwent Yoga Practice, experimental group - II underwent Yoga Practice with Medicine Ball Exercises and group - III acted as control that did not participate in any special activities apart from their regular curricular activities. A pilot study was conducted to assess the initial capacity to the subject in order to fix the load. The following variables were chosen namely Speed (50 meters dash), Agility (shuttle run) and Muscular Endurance (Bent Knee Sit Ups). The data were collected before (pretest) and after the experimental period of six weeks (post test) in identical manner. The pretest and post test scores were subjected to statistical analysis by using the Analysis of Covariance (ANCOVA). Wherever the F'ratio for adjusted post test was found to be significant Scheffes's post hoc test was used to determine the paired mean difference among the groups. The level of significance was fixed at 0.05 level of confidence.

KEYWORDS: Yoga practice with Medicine ball exercises, Speed, Agility and Muscular Endurance.

INTRODUCTION

Kabaddi is a team sport in the nature of group of players performing towards its goal. In nature of play, it can be called as practically as individual sport as the raider in this game making an attempt individually raiding into the opponent court and return back to line specified which cant' in this game. This is the uniqueness of kabaddi among the team sport, no one players can only mastery over either offensive and defensive skills, instead to be excel in this game, and be the outstanding performance player has to exhibit this skill both in offensive and defensive skills in the game.

The major pre- request for the performance in the game of kabaddi, can be classified based on its influence as ideological, technical, tactical, conditioning and structural. Ideologically, this game demands personality, value, motivational structure, and cognitive abilities from the player. Technically for this game, player as in need of coordinative abilities of knowledge and apprehension situations. Thus the technical and ideological are the psychological perspectives required for the players in the game of kabaddi. Conditioning and structural aspects are the physical perspectives that are demanding in terms of physical fitness, motor fitness and anthropometric structures. Thus in sum the game kabaddi is a game of psychophysical in its nature.

During learning, and training, players have to utilize both his physical and mental abilities equally since the movements are psychomotor and physical in nature. Thus, learning the fundamental skills namely, footwork, diving, kicking, jumping, chasing, pashing, blacking and catching that have to be exhibited in the competitive are the product of stability, mobilities and neuromuscular abilities. Such a way to develop the coordinative abilities and motor fitness aspects, the most appropriate means of training such as medicine ball exercise following this as the game itself is in psychophysical nature, the psychophysical training of Hatha yoga can be added in addition to the traditional physical training.

The usage of hatha yoga in the game of kabaddi is as follows. Hatha yoga as a branch of yoga that units pairs of opposites referring to the positive (Sun) and negative (Moon) currents in the system. It concentrates on asana and pranayama – that step in to eight limbs of yoga. This system helps to achieve the balance between the body and mind. Though the physical posture, purification practice, controlled breathing and concentration of mind, Basically hatha yoga is a form of physical exercises, makes the individual to bring their attention to breath, which helps to skills the flucation of the mind and be more perfect in this unfolding each movement. Hatha Yoga primarily deals with physical and in relation mental.

STATEMENT OF THE PROBLEM

In sports the performance of a player is to be trained based on its nature of activity which enables him to learn fast and implicate the same in game situations. The purpose of the study was to find out the Effects of

yoga practice with medicine ball exercises on motor fitness of inter collegiate kabaddi players.

METHODOLOGY

In order to address the hypothesis presented here in forty five inter college male kabaddi players residing around from Kovai Kalaimagal College of Arts and Science, Coimbatore, Tamilnadu, were selected as subjects. The age of the subjects were ranged from 18 to 24 years. The selected subjects were divided into three equal groups, each group consisted of ten subjects, in which group - I (n = 15) underwent Yoga Practice, experimental group - II (n = 15) underwent Yoga Practice with Medicine Ball Exercises and group - III (n = 15) acted as control, that did not participate in any special activities apart from their regular curricular activities. The training period for the study was four days (Monday to Thursday in a week for six weeks. The researcher consulted with the yoga experts and selected the following variables as criterion variables: 1. Speed, 2. Agility, 3. Muscular Endurance. For the purpose of collection of data the subjects were asked to report at early morning, one day prior and one day after experimental period. Analysis of covariance (ANCOVA) was applied to find out the significant difference if any, among the experimental groups and control group on selected criterion variables separately. In all the cases, .05 level of confidence was fixed to test the significance, which was considered as appropriate. After applying the analysis of covariance, the result of this study shows that there was a significant increase in breath holding time, decrease in Low density lipoprotein and high density lipoprotein levels.

CRITERION MEASURES

SL.NO	VARIABLES	TEST	UNIT OF MEASURES
1	Speed	50 yard dash	In seconds
2	Agility	Shuttle run	In seconds
3	Muscular endurance	Bent knee Sit- ups	In numbers

RESULTS

The data collected on percent of Speed, Agility and Muscular Endurance among experimental and control groups were analyses and the results were presented in Table – I.

TABLE – I
ANALYSIS OF COVARIANCE ON SELECTED CRITERION VARIABLES AMONG EXERCISE GROUPS AND CONTROL GROUP

Table – I shows that pre and post test means ‘f ratio of Yoga practice group, Yoga Practice with Medicine Ball group and control group on percent of Speed were 2.35and 11.45, Agility were 2.35 and 19.89 and Muscular Endurance were 0.33 and 32.17 which is insignificant at 0.05 level of confidence. The adjusted post test mean ‘f’ ratio value of experimental groups and control group was 2.35, 54.78 and 94.93 which was significant at 0.05 level of confidence. The pre and post test means ‘f ratio of Yoga practice group, Yoga Practice with Medicine Ball and control group, which is significant at 0.05 level of confidence.

Variables	Group Name	YPG	YPMBG	Control Group	'F' Ratio
SPEED	Pre test Mean ± SD	7.88 ± 0.23	7.62 ± 0.37	7.66 ± 0.36	2.35
	Post test Mean ± SD	7.64 ± 0.14	7.29 ± 0.45	7.90 ± 0.28	11.45*
	Adj. post test	7.55	7.36	7.96	21.15*
AGILITY	Pre test Mean ± SD	10.99 ± 0.57	9.99 ± 0.60	11.81 ± 1.03	2.35
	Post test Mean ± SD	10.27 ± 0.47	9.99 ± 0.60	12.12 ± 1.04	19.89*
	Adj. post test	10.56	10.20	11.73	54.78*
MUSCULAR ENDURANCE	Pre test Mean ± SD	36.93 ± 3.39	36.80 ± 3.21	37.80 ± 2.83	0.33
	Post test Mean ± SD	43.60 ± 2.99	44.60 ± 2.72	36.13 ± 2.85	32.17*
	Adj. post test	43.59	44.89	35.72	94.93*

*Significant 0.05 level of confidence.
(The table values required for significance at .05 level of confidence with df 2 and 42 and and 41 were 3.22 and 3.21 respectively).

RESULTS OF POST HOC TEST

SPEED

Table II showed that the mean difference value between YPG , YPMBG and CG were 0.19, 0.04 and 0.59 respectively on Speed. The required CI. It is concluded that there is in significant difference among the three groups namely YPG, YPMBG and CG for the inter college kabaddi players.

AGILITY

Table II showed that the mean difference value between YPG, YPMBG and CG were 0.36, 1.17and 1.53 respectively on Speed. The required CI. It is concluded that there is in significant difference among the three groups namely YPG, YPMBG and CG for the inter college kabaddi players.

MUSCULAR ENDURANCE

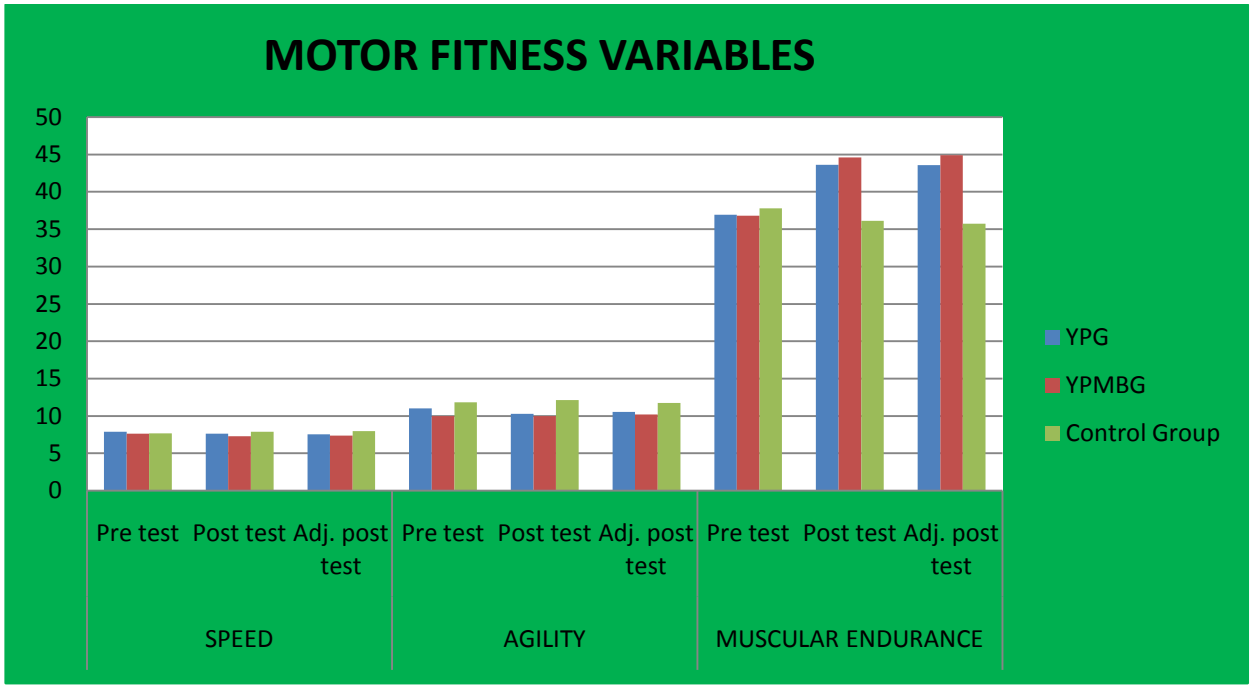
Table II showed that the mean difference value between YPG, YPMBG and CG were 1.3, 7.87 and 9.17 respectively on Speed. The required CI. It is concluded that there is in significant difference among the three groups namely YPG, YPMBG and CG for the inter college kabaddi players.

TABLE – II
SCHEFFĚ S TEST FOR THE DIFFERENCE BETWEEN THE ADJUSTED POST-TEST MEAN OF SELECTED CRITERION VARIABLES

Adjusted Post – Test Mean on SPEED				
Y PG	**YPMBG**	**C G**	**Mean Difference**	**Confidence interval at 0.05 level**
7.55	7.36	-	0.19	0.22
7.55	-	7.95	0.04	0.22
-	7.36	7.95	0.59*	0.22
Adjusted Post – Test Mean on AGILITY				
10.56	10.20	-	0.36	0.33
10.56	-	11.73	1.17*	0.33
-	10.20	11.73	1.53*	0.33
Adjusted Post – Test Mean on MUSCULAR ENDURANCE				
43.59	44.89	-	1.3	4.15
43.59	-	35.72	7.87*	4.15
-	44.89	35.72	9.17*	4.15

**Significant at .05 level of confidence.

FIGURE 1
ILLUSTRATION OF COMPARATIVE ANALYSIS OF SELECTED MOTOR FITNESS VARIABLES



DISCUSSION

Based on the results of comparative effects, it was observed that the treatment of hatha yoga with medicine ball exercises group were found to be better in the development of motor fitness variables of speed, agility, muscular endurance when compared to hatha yoga practice group and control group mentioned above table. The obtained results lead to conclude that when players practicing with medicine ball exercise it which helps to develop the coordinative abilities along with the abilities of strength and mobility. Result of which may develop the abilities of endurance in terms of muscular and cardio- respiratory. Following this, the same player when treated with hatha yoga group it develops the physical, mental and physiological aspects through practicing asanas, pranayama and meditation. In such a way, the major pre- requests of kabaddi are fulfilled by the hatha yoga practice with medicine ball exercises, such scientific nature would be the significant source for the dominance of this group compared to hatha yoga alone and control group.

CONCLUSIONS

Six weeks of Yoga practice, Yoga Practice with Medicine Ball significantly improved the speed, agility and Muscular endurance of intercollegiate male kabaddi players. It was clearly stated that Yoga practice, Yoga practice with medicine ball group produce better result than control group for motor fitness variables of speed, agility and muscular endurance of intercollegiate male kabaddi players.

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