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Combined effect of core training and speed training on speed and agility among male kabaddi players

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Abstract

The purpose of the study is to find out the combined effect of core training and speed training on speed and agility among inter collegiate kabaddi players. To achieve the purpose of the present study thirty male kabaddi players studying in various departments and colleges of Dhanalakshmi Srinivasan group of institutions, Perambalur, Tamil Nadu, in the age group of 18 - 25 years were selected as subjects. They were divided into three groups, in which, Group - I (n=15) underwent core training with speed training, group - II (n=15) acted as control, who did not participate any special training apart from their regular routine activities. Prior to and after the exercises period the subjects were tested for speed and agility, explosive power. Speed was measured by 50 meters dash and agility measured by T-test. Analysis of covariance (ANCOVA) was applied to know the significant mean difference between experimental and control group on speed and agility. It is concluded that twelve weeks of core training with speed training showed an impact on speed and agility in experimental group.

Keywords: core with speed training, kabaddi, speed and agility

Introduction

Core training is the gradual development of the lumbo-pelvic-hip complex and/or transversus abdominis muscles, which are crucial for posture and lumbar spine stabilization.

Moving quickly is typically a need in speed training. Running and other quick actions are a part of speed training. Speed is the capacity to cover ground fast or to quickly move limbs for catching or throwing.

Kabaddi is basically an outdoor team game, played in the tropical countries of Asia. This indigenous game of India was adopted by other countries in Asia. The game demands agility, muscular co-ordination, breath holding capacity, explosive power, upper and lower body strength, speed, aerobic and anaerobic endurance, flexibility, core strength, quick response and a great deal of presence of mind.

Statement of the Problem

The purpose of present study was to find out combined effect of core training and speed training on speed and agility among male kabaddi players.

Methodology

The purpose of the study is to find out the combined effect of core training and speed training on speed and agility among inter collegiate kabaddi players. To achieve the purpose of the present study thirty male kabaddi players studying in various departments and colleges of Dhanalakshmi Srinivasan group of institutions, Perambalur, Tamil Nadu, in the age group of 18 - 25 years were selected as subjects. They were divided into three groups, in which, Group - I (n=15) underwent core training with speed training, group - II (n=15) acted as control, who did not participate any special training apart from their regular routine activities. Prior to and after the exercises period the subjects were tested for speed and agility explosive power. Speed was measured by 50 meters dash and agility measured by T-test. The statistical tool used for the present study is ANCOVA.

Analysis and Interpretation of Data

The data collected prior to and after the experimental periods

on speed and agility on core with speed training and control group were analyzed and presented in the following table -I.

Table I: Analysis of covariance of speed and agility on core with speed training and control group

Variable Name	Group Name	Experimental Group	Control Group	'F' Ratio
Speed	Pre-test Mean \pm S.D	5.96 \pm 0.263	5.99 \pm 0.271	0.636
	Post-test Mean \pm S.D.	5.81 \pm 0.272	5.98 \pm 0.262	11.23*
	Adj. Post-test Mean \pm S.D.	5.82	5.98	58.69*
Agility	Pre-test Mean \pm S.D	9.86 \pm 0.43	9.87 \pm 0.41	0.564
	Post-test Mean \pm S.D.	9.72 \pm 0.37	9.87 \pm 0.43	12.25*
	Adj. Post-test Mean \pm S.D.	9.71	9.87	45.36*

* Significant at 0.05 level of significance.

(The table value required for significance at 0.05 level of significance with df 1 and 28 and 1 and 27 were 4.196 and 4.210 respectively).

Table- I showed that the pre-test and S.D values of speed for core with speed training and control group were 5.96 \pm 0.263 and 5.81 \pm 0.271. The obtained 'F' ratio value of 0.636 for pre-test score of core with speed training and control group on speed was less than the required table value of 4.196 for significance with df 2 and 28 at 0.05 level of confidence.

The post-test and S.D values of speed for core with speed training control group were 5.81 \pm 0.272 and 5.98 \pm 0.262 respectively. The obtained 'F' ratio value of 11.23 for post-test score of core with speed training and control group on speed was greater than the required table value of 4.196 for significance with df 2 and 28 at 0.05 level of confidence.

The adjusted post-test mean value of speed for core with speed training and control group were 5.82 and 5.98 respectively. The obtained 'F' ratio value of 58.69 for adjusted post-test score of core with speed training and control group was more than the required table value of 4.210 for significant with df 2 and 27 at 0.05 level of confidence.

Table- I showed that the pre-test and S.D values of agility for core with speed training and control group were 9.86 \pm 0.43 and 9.87 \pm 0.41. The obtained 'F' ratio value of 0.564 for pre-test score of core with speed training and control group on speed was less than the required table value of 4.196 for significance with df 2 and 28 at 0.05 level of confidence.

The post-test and S.D values of agility for core with speed training control group were 9.72 \pm 0.37 and 9.87 \pm 0.43 respectively. The obtained 'F' ratio value of 12.25 for post-test score of core with speed training and control group on agility was greater than the required table value of 4.196 for significance with df 2 and 28 at 0.05 level of confidence.

The adjusted post-test mean value of agility for core with speed training and control group were 9.71 and 9.87 respectively. The obtained 'F' ratio value of 45.36 for adjusted post-test score of core with speed training and control group was more than the required table value of 4.210 for significant with df 2 and 27 at 0.05 level of confidence.

Conclusions

Within the limitations and delimitations of this study the following conclusions were drawn from the result.

1. It was concluded that there was significant development of speed and agility among kabaddi players due to core with speed training.
2. The result of the study reveal that core with speed training group have better development of speed and agility compared with control group.

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