INFLUENCE OF FAST FOOTWORK EXERCISES ON SELECTED PHYSICAL FITNESS VARIABLES AMONG HOCKEY PLAYERS

Dr. K. SATHEESH KUMAR, Assistant Professor

St.Johns College of Physical Education, Veeravanallur, Tirunelveli, Tamilnadu, India

Abstract

The purpose of the study was to find out the purpose of the study was to find out the Influence of Fast footwork exercises on selected physical fitness variables among college hockey players. To achieve the purpose of the study thirty college students were selected randomly as subjects from St.johns College of physical education; veeravanallur, tirunelveli District, Tamilnadu, India and their age were ranged from 14 to 17 years. The subjects divided into two groups in equal numbers (N=15). Group I underwent fast footwork exercise group and group II acted as control group who did not attended any special training other than their daily college schedule curriculum. The duration of the training period was restricted into six weeks for three alternative days per week. The pre and post tests data were collected before and after the training period. The dependent variables Agility test (505 Agility test) and speed (40 mts speed) were tested by standardized test items 505 agility test and 40 m speed test respectively. The collected data from the two groups prior to and after the experimental treatments on selected variables Agility test and speed were statistically analyzed by using the statistical technique of dependent't' test and analysis of covariance (ANCOVA). In all the cases the level of confidence was fixed at 0.05 significant. The result of the study indicated that the experimental group had shown significantly improved in physical fitness (Agility test (505 Agility test) and speed (40 mts speed) variables among school students due to the effects of fast footwork exercise. However the control group did not shown any significant improvement on selected variables such as 505 agility and 40 m speed. This research conclusion was full children natural activity and education development health and social relation health in a simple way of the fast foot work exercises effect on the teacher and persons.

Keywords: Fast footwork exercise, Agility test (505 Agility test) and speed (40 mts speed)

Introduction

Fast footwork exercises to increase the speed and coordination of your feet. Fast and coordinated footwork can improve your performance on the pitch, and with these speed ladder drills, you can take your foot speed to another level. Fast footwork and balance are essential for turning, dribbling and moving sharper on the pitch. Incorporate these drills into your training sessions to see huge improvements in your game. Fast footwork exercises for hockey should be incorporated into any good training regimen. Sport specific training is based on the theory of specificity. This principle states that maximum benefit of training is obtained when the exercise replicates the movements and energy systems used in a hockey game. Sport scientists, personal experience, and mounting research demonstrate that the training and its surrounding environment must be virtually identical to actual sport performance for meaningful transfer to take place. Improve multi-directional speed and acceleration to beat your opponent to the puck. Improve total body strength to stand strong in the corner and push your opponent off the puck. Enhance rotational and core power for faster, more powerful shots and better speed, balance and coordination. Enhance total body power to deliver and absorb checks throughout the game.

Statement of the Problem

The purpose of this study was to find out the purpose of the study was to find out the Influence of Fast footwork exercises on selected physical fitness variables among college hockey players.

Methodology

The purpose of this study was to find out the purpose of the study was to find out the Influence of fast footwork exercises on selected physical fitness variables among college hockey players. To achieve the purpose of the study thirty college men hockey players were selected randomly as subjects from St.johns College of physical education, Veeravanallur, Tirunelveil District, Tamilnadu, India and their age were ranged from 14 to 17 years. The school students were assigned at random into two groups of each twelve (N=15). Group-I underwent leg circular exercise and Group–II acted as control group who did not attended any special activities & training other than their regular daily college schedule curriculum. The duration of the fast footwork exercise period was restricted to six week for three alternative days per week. The pre and post data were collected before and after the fast footwork exercise period were statistically analyzed by using the statistical technique of dependent't' test and analysis of covariance (ANCOVA). In all the cases 0.05 level of confidence was fixed as a level of confidence to test the hypotheses. The dependent variables physical fitness were tested by standardized tests Agility test (505 Agility test) and speed (40 mts speed) test.

Analysis of the data

The Influence of fast footwork exercises on selected physical fitness variables among college hockey players. Were analyzed and presented below.

 Agility (505 agility running) Test

The t-test on agility test (505 agility test second) of the pre and post test scores of fast footwork exercise group and control group have been analyzed and presented in table I.

TABLE-I

THE PRE TEST AND POST TEST SCORES OF EXPERIMENTAL AND CONTROL GROUP ON AGILITY (505 agility) TEST

Group	Pre Mean	SD	Post Mean	SD	Obtained t-ratio
Experimental	3.43	0.48	3.22	0.45	3..65*
Control	3.50	0.46	3.52	0.42	0.54

*Significant at .05 level. (The table value required for 0.05 level of significance with df 14 is 2.14)

The table I show that the pre-test mean value of fast footwork exercises group and control group are 3.43 and 3.50 respectively and the post test means are 3.22 and 3.52 respectively. The obtained dependent t-ratio values between the pre and post test means of fast footwork exercises group and control group are 2.65 and 0.54 respectively. The table value required for significant difference with df 28 at 0.05 level is 2.14. Since, the obtained 't' ratio value of fast footwork exercises group was greater than the table value, it is understood fast footwork exercises group had significantly improved the 505 agility running test. However, the control group has not improved significantly. The 'obtained t' value is less than the table value, as they were not subjected to any specific training.

Analysis of covariance (ANCOVA) on 505 agility running test of experimental and control groups have been analyzed and presented in table II.

TABLE II

ANALYSIS OF COVARIANCE (ANCOVA) ON AGILITY TEST OF EXPERIMENTAL GROUP AND CONTROL GROUP

Adjusted Post Test Means		Source of variance	Sum of squares	Ddf	Mean square	F – ratio
Experimental Group	Control Group	Between	2.50	1	2.50	7.57*
3.33	3.51	Within	8.83	27	0.33	

* Significant at 0.05 level. (The table value required for significance at 0.05 levels with df 1 and 27 is 4.21)

Table II shows that the adjusted post test means values on agility test. The obtained f- ratio of 7.57 for adjusted post test mean is greater than the table value 4.21 with df 1 and 27 required for significance at 0.05 level of confidence. The results of the study indicate that there is a significant mean difference exist between the adjusted post test means of fast footwork exercises and control groups on 505 agility running test.

The bar diagram shows the mean values of pre test, post test and adjusted post test on agility test of fast footwork exercises group and control group.

FIGURE I

PRE TEST, POST TEST AND ADJUSTED POST TESTMEAN VALUES OF FAST FOOTWORK EXERCISES AND CONTROL GROUPS ON AGILITY TEST
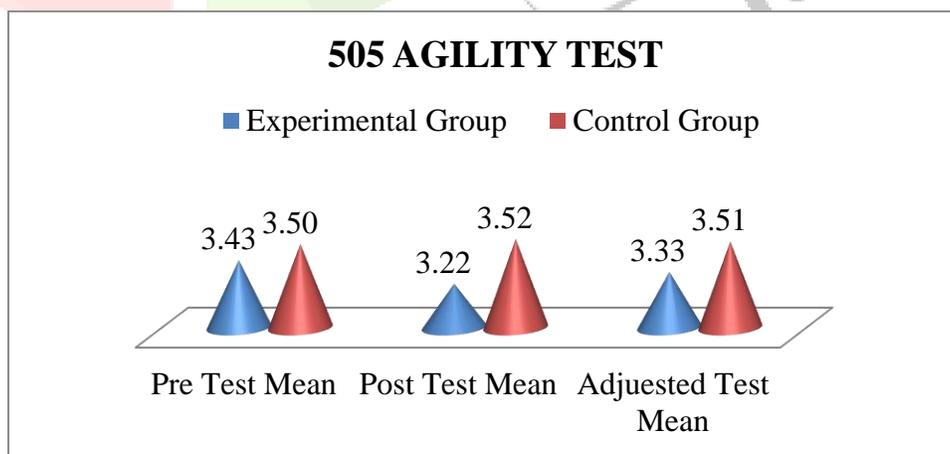
Speed test (40 mts sprint running test)

The t-test on speed (seconds) of the pre and post test scores of fast footwork exercises group and control group have been analyzed and presented in table III.

TABLE-III

THE PRE TEST AND POST TEST SCORES OF EXPERIMENTAL AND CONTROL GROUP ON
SPEED TEST

Group	Pre Mean	SD	Post Mean	SD	Obtained t-ratio
Experimental	5.52	2.63	4.10	1.53	3.42*
Control	5.50	1.74	5.48	1.54	0.35

*Significant at .05 level. (The table value required for 0.05 level of significance with df 14 is 2.14)

The table III show that the pre-test mean value of fast footwork exercise group and control group are 5.52 and 5.50 respectively and the post test means are 4.10 and 5.48 respectively. The obtained dependent t-ratio values between the pre and post test means of fast footwork exercise group and control group are 3.42 and 0.35 respectively. The table value required for significant difference with df 28 at 0.05 level is 2.14. Since, the obtained 't' ratio value of fast footwork exercise group was greater than the table value, it is understood fast footwork exercise group had significantly improved the speed test. However, the control group has not improved significantly. The 'obtained t' value is less than the table value, as they were not subjected to any specific training.

Analysis of covariance (ANCOVA) on speed test of experimental and control groups have been analyzed and presented in table IV.

TABLE IV

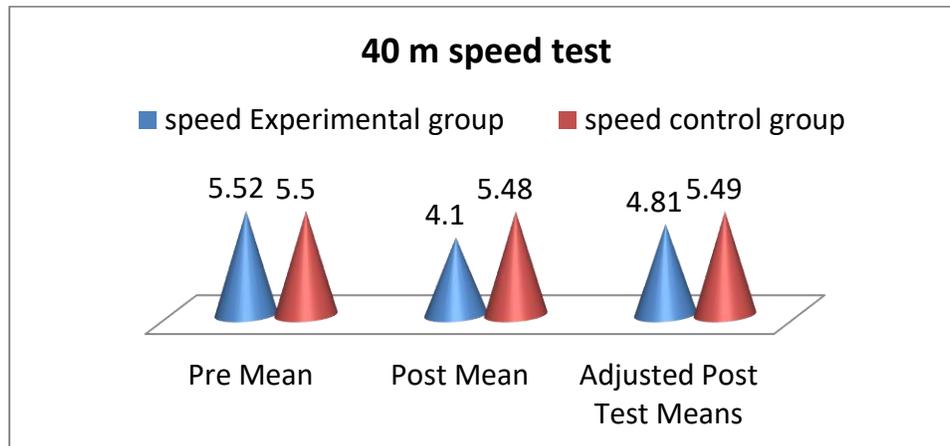ANALYSIS OF COVARIANCE (ANCOVA) ON SPEED TEST OF EXPERIMENTAL GROUP AND
CONTROL GROUP

Adjusted Post Test Means		Source of variance	Sum of squares	Ddf	Mean square	F – ratio
Experimental Group	Control Group	Between	42.21	1	42.21	10.05*
4.81	5.49	Within	140.53	27	4.20	

* Significant at 0.05 level. (The table value required for significance at 0.05 levels with df 1 and 27 is 4.21)

Table IV shows that the adjusted post test means values on speed test. The obtained f- ratio of 10.05 for adjusted post test mean is greater than the table value 4.21 with df 1 and 27 required for significance at 0.05 level of confidence. The results of the study indicate that there is a significant mean difference exist between the adjusted post test means of fast footwork exercise and control groups on speed test.

The bar diagram shows the mean values of pre test, post test and adjusted post test on speed test of fast footwork exercise group and control group.

FIGURE II

PRE TEST, POST TEST AND ADJUSTED POST TESTMEAN VALUES OF FAST FOOTWOEK EXERCISE AND CONTROL GROUPS ON SPEED TEST

40 m speed test

■ speed Experimental group   ■ speed control group

| | 5.52 | 5.5 | | 4.1 | 5.48 | | 4.81 | 5.49 |

Pre Mean   Post Mean   Adjusted Post Test Means

Conclusions

There was significant improvement on agility test (505 agility running test) due to the effect of fast footwork exercises college men hockey players

There was significant improvement on speed test (40 mts speed test) due to the effect of fast footwork exercises college men hockey players

However the control group had not shown any significant improvement on any of the selected variables.

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