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PHYSICAL EDUCATION

EFFECT OF JUMP ROPE CIRCUIT TRAINING ON ANAEROBIC POWER AMONG HOCKEY PLAYERS

Dr.V.SAMINATHAN[1] & Dr.Ch.VST. SAIKUMAR[2]

[1]Assistant Professor, Sri Ramakrishna Mission Vidyalaya, Maruthi College of Physical Education, Coimbatore, Tamilnadu.
[2]Principal & secretary, Sri Ramakrishna Mission Vidyalaya, Maruthi College of Physical Education, Coimbatore, Tamilnadu.

Abstract

The purpose of the study was to find out the effect of jump rope circuit training on anaerobic power among hockey players. It was hypothesized that there would be significant differences on anaerobic power due to the effect of jump rope circuit training among hockey players. For the present study the thirty hockey players who participated in the Inter-collegiate tournaments from Ramakrishna Mission Vidyalaya, Coimbatore were selected at random and their age ranged from 18 to 22 years. Anaerobic power was tested by Margaria Kalamen power test. For the present study pre test – post test random group design which consists of control group and experimental group was used. The subjects were randomly assigned to two equal groups of fifteen players each and named as Group 'A' and Group 'B'. Group 'A' underwent jump rope circuit training and Group 'B' has not undergone any training. The data was collected before and after twelve weeks of training. The data was analyzed by applying dependent 't test. The level of significance was set at 0.05. The jump rope circuit training had shown significant improvement in anaerobic power among hockey players.

Keywords: Jump rope circuit training, Anaerobic power, Hockey.

INTRODUCTION

This jump rope circuit workout includes a mix of both jumping rope and total body strength exercises for a fast-paced, whole-body workout. Jumping rope is an excellent cardio exercise, but it can be tough if you haven't done it in a while. The circuit training exercises below are useful for designing a classic circuit training routine i.e. the one that develops short-term muscular endurance. Traditional core exercises are often done in a prone or supine position to focus on engaging and isolating the abdominals or the lower back (Brezzo et al. 1998).

METHODOLOGY

The purpose of the study was to find out the effect of jump rope circuit training on anaerobic power among hockey players. It was hypothesized that there would be significant differences on anaerobic power due to the effect of jump rope circuit training among hockey players. For the present study the thirty hockey players who participated in the Inter-collegiate tournaments from Ramakrishna Mission Vidyalaya, Coimbatore were selected at random and their age ranged from 18 to 22 years. Anaerobic power was tested by Margaria Kalamen power test. For the present study pre test – post test random group design which consists of control group and experimental group was used. The subjects were randomly assigned to two equal groups of fifteen players each and named as Group 'A' and Group 'B'. Group 'A' underwent jump rope circuit training and Group 'B' has not undergone any training. The data was collected before and after twelve weeks of training. The data was analyzed by applying dependent 't test. The level of significance was set at 0.05.

RESULTS

TABLE 1
ANCOVA BETWEEN EXPERIMENTAL GROUP AND CONTROL GROUP ON ANAEROBIC POWER OF HOCKEY PLAYERS FOR PRE, POST AND ADJUSTED TEST

	Experimental Group	Control Group	Source of Variance	Sum of Squares	df	Mean Square	F
Pre Test Mean	91.58	91.45	BG	0.14	1	0.14	0.01
			WG	233.06	28	8.32	
Post Test Mean	96.34	91.42	BG	2116.70	1	2116.70	154.16*
			WG	328.66	28	13.73	
Adjusted Post Mean	96.32	91.40	BG	2112.46	1	2112.46	150.24*
			WG	325.87	27	14.06	

*** Significant at 0.05 level.** **df: 1/27= 4.21**

Table1 revealed that the obtained 'F' value of 15 w.24as found to be significant at 0.05 level with df 1, 27 as the tabulated value of 4.21 required to be significant at 0.05 level. The same table indicated that there was a significant difference in adjusted means of anaerobic power of hockey players between experimental group and control group. The graphical representation of data has been presented in figure I.

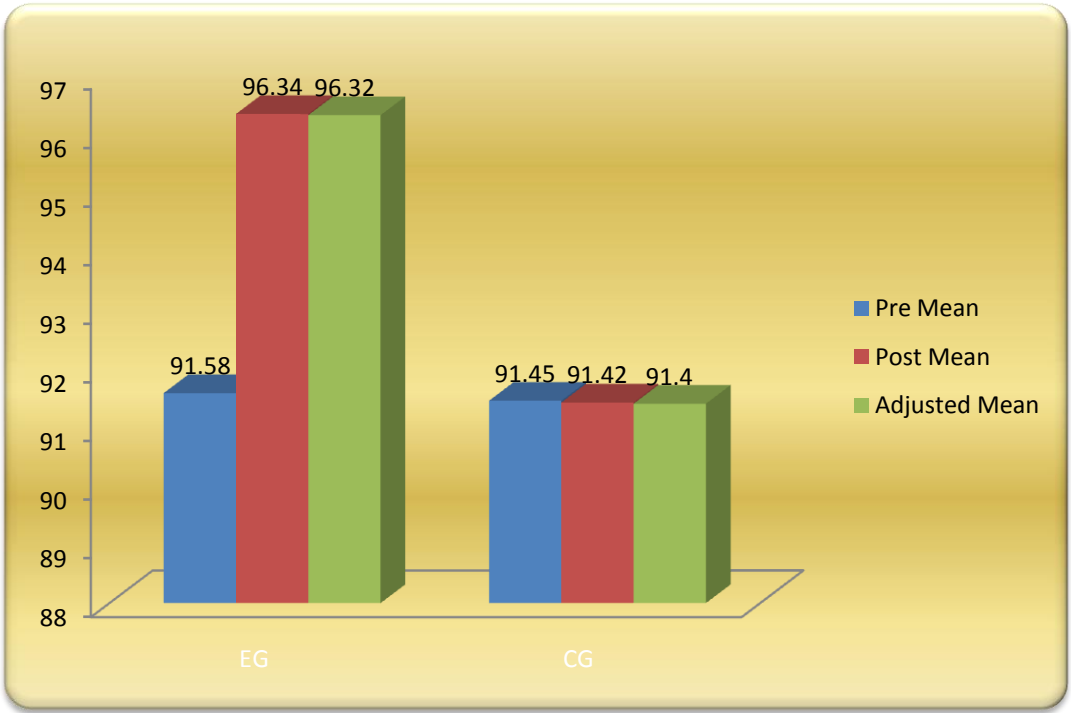

FIGURE I
COMPARISONS OF PRE – TEST MEANS POST – TEST MEANS AND ADJUSTED POST – TEST MEANS FOR CONTROL GROUP AND EXPERIMENTAL GROUP IN RELATION TO ANAEROBIC POWER

CONCLUSION

1. The jump rope circuit training had shown significant improvement in anaerobic power among hockey players.

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