International Journal of Engineering Research and Modern Education (IJERME)
Impact Factor: 7.018, ISSN (Online): 2455 - 4200
(www.rdmodernresearch.com) Volume 6, Issue 2, 2021

EFFECT OF CIRCUIT TRAINING ON HEART RATE AMONG HOCKEY PLAYERS

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Cite This Article: Dr. V. Saminathan, "Effect of Circuit Training on Heart Rate among Hockey Players", International Journal of Engineering Research and Modern Education, Volume 6, Issue 2, Page Number 50-51, 2021.

Abstract:

The purpose of the study was to find out the effect of circuit training on heart rate among hockey players. To achieve the purpose of the present study, thirty hockey players from Sri Ramakrishna Mission Vidyalaya, Maruthi College of Physical Education, Coimbatore, Tamilnadu were selected as subjects at random and their ages ranged from 18 to 25 years. The subjects were divided into two equal groups of fifteen each. Group I acted as Experimental Group I (Circuit training) and Group II acted as Control Group. Analysis of covariance (ANCOVA) was used to test the treatment effect of the training programmes on all the variables used in the study. It was observed that the six weeks of circuit training have significantly decreased in the heart rate.

Key Words: Circuit Training, Heart Rate, Hockey

Introduction:

Circuit training aims at developing general or basic fitness which is a pre – requisite to every sport. It is designed to assist the development of the muscular as well as the circulatory and respiratory systems of the body. Its principle is based on the system of progressive loading. Circuit training can be used for general fitness purposes, can be adapted as a conditioning medium for various arduous sports. A circuit may consist of a number of different exercises with or without apparatus. It aims at all round development. The dosage of each exercise are arranged in station around the gymnasium or track. In each circuit try to ensure that no two consecutive exercises to the same muscle group. A circuit should be set up so that you work each body part as follows: Total body, upper body, lower body, core and trunk, etc. (Frietas et al. 2015)

Methodology:

The purpose of the study was to find out the effect of circuit training on heart rateamong hockey players. To achieve the purpose of the present study, thirty hockey players from Sri Ramakrishna Mission Vidyalaya, Maruthi College of Physical Education, Coimbatore, Tamilnadu were selected as subjects at random and their ages ranged from 18 to 25 years. The subjects were divided into two equal groups of fifteen each. Group I acted as Experimental Group I (Circuit training) and Group II acted as Control Group. Analysis of covariance (ANCOVA) was used to test the treatment effect of the training programmes on all the variables used in the study.

Results:

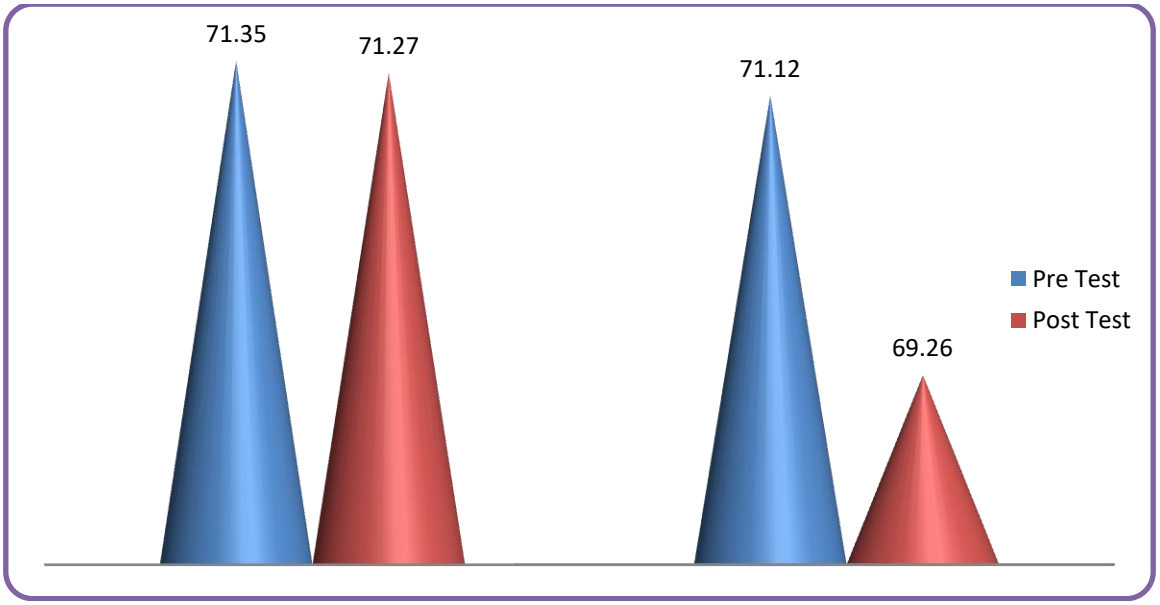
Table 1: Dependent 'T'- Ratio for Hockey Players on Heart Rate

S.No	Group	Mean		SD		Obtained Value	Table Value
		Pre	Post	Pre	Post		
1	Control Group	71.35	71.27	1.34	1.13	1.11	2.14
2	Experimental Group	71.12	69.26	1.35	1.67	3.87*	

Degree of freedom = (N – 1) = 14. *Significant at 0.05 level of confidence. Table value at 0.05 level = 2.14

Table 1 shows that the mean value of pre and post test means were 71.35 and 71.27 of control group. The obtained t-ratio 1.11 was not significant this was lesser than the table value of 2.14. Table shows that the mean value of pre and post test mean were 71.12 and 69.26 of experimental group. The obtained t-ratio 3.87 was significant this was higher than the table value of 2.14.

Figure 1: Diagram Shows the Result of Pre and Post Mean of the Heart Rate among Hockey Players



Conclusion:

It was observed that the six weeks of circuit training have significantly decreased in the heart rate.

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