



International Journal of Physical Education, Sports and Health

P-ISSN: 2394-1685
E-ISSN: 2394-1693
Impact Factor (ISRA): 5.38
IJPESH 2017; 4(2): 111-112
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www.kheljournal.com
Received: 02-03-2017
Accepted: 22-03-2017

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Impact of circuit training on selected physical fitness variables of male hockey players

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Abstract

The purpose of the study was to investigate the effects of circuit training on Speed and Agility. To achieve the purpose of the study (N=30) intercollegiate level male Hockey players were selected as subjects at random. The age of the subject was ranged from 18 - 25 years. The criterion variables are considered to be very important for a Hockey player. Speed was assessed by 50m run test and Agility was assessed by shuttle run test. The data pertaining to the selected physical fitness variables were analysed by employing dependent 't' test to determine the final score of the selected subject (N= 30). The circuit training package was designed specifically by the investigator with the help of training experts and given to the subject for a period of only six weeks.

Keywords: circuit training, physical fitness variables, male hockey players

Introduction

Sports training is not a novelty or recent discovery. It existed both in ancient Egypt and later in Greece where people systematically trained for both military and Olympic endeavour. Today through training as in ancient times, the athlete prepares themselves for a definite goal. In order to elevate athletic performance, the main scope of training centres on increasing the traits. Though many methods prevail to develop the performance in Hockey, the role of circuit training is an undisputed one. "Circuit training is the training programme in which an athlete moves from one exercise station another in a planned sequence in the shortest possible time" (Neal, 1969) [3]. A typical Hockey player must train years to refine the technique and to develop physical fitness factors especially strength, speed, power, agility etc. There are many types of training by which an athlete can improve the said physical fitness qualities. Circuit training has proved to be a very effective method for improving the strength endurance (Don Cash Seaton *et al.* 1983) [2].

Methodology

This study was designed to find out the effects of circuit training on selected physical fitness variables especially Speed and Agility of male intercollegiate level Hockey players. For this purpose (N=30) players were selected at random. Their age was ranged from 18 and 25. The circuit training package was designed specifically by the investigator with the help of training experts and given to the subjects for a period of only six weeks. The tests used for collecting data before and immediately after the training programme were 50m run and shuttle run test respectively.

Statistical Technique Used

The collected data were analysed statistically by using dependent 't' test to determine the differences, if any prior to and immediately after the training period on selected criterion variables separately. The level of significance was fixed at 0.05 level of confidence, which was considered as appropriate.

Table 1: The analysis of the effect of circuit training on speed and agility of male hockey players

Variables	Mean value	't' ratio
Speed	Pre-test – 6.92	7.40
	Pre-test – 6.62	
Agility	Pre-test – 6.97	5.84
	Pre-test – 6.66	

*scores on speed and Agility are expressed in seconds
Significant at 0.05 level of confidences $t(22) = 2.074$

It is evident from Table – 1 that there was a significant improvement in speed and Agility after the experimental period.

Discussion and Findings

Speed is the rate at which a body moves from one location to another (Charles B Corbin and Ruth Lindsey, 1985) ^[1] The circuit training programme involve motor movements that had to be executed with high speed over a period of 6 weeks. This might be the reason for the significant improvement of speed. Agility is the quality of muscle to contract forcefully in the quickest possible time. (Hardayal Singh, 1991) ^[4]. Circuit training schedule involved various agility oriented exercises that had to be executed in the circuit station. This might be the reason for the significant improvement of Agility.

Conclusions

It is evident from Table – 1 that there was a significant improvement in speed and Agility after the experimental period. From the finding of the study it was concluded that, performances to a certain extent depend upon the physical, motor fitness qualities in which definite improvement can be achieved through appropriate training. (C. Bouchers and R.M. Malina, 1999) ^[5].

References

1. Charles B. Corbin and others, "Concept of Physical fitness, Dubuque: Ww C Brown Publishers, 1985.
2. Don Cash Seaton and others, "Physical Education Hand Book", Englewood cliffs, N.J. Prentice Hall, 1983.
3. Neal pasty, "Coaching methods for women", Massachussets; Addison Wisely Publishing Company 1968.
4. Singh Hardayal, "science of sports training New Delhi: Dvs Publishers, 1991.
5. Bourcher C and Others, "Genetics of Physical fitness and motor performance". Exercise and sports sciences review, 11, 1999