



Effects of Parcourse Training on Selected Performance Related Physical Fitness Parameters of Handball Players

KEYWORDS

Training, Parcourse Training, Performance Fitness Variables, Speed and Strength Endurance.

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ABSTRACT *The purpose of the study was to find out the effects of parcourse training on selected performance related physical fitness parameters of handball players. To achieve this purpose, thirty male handball players were selected as subjects, their aged between 18 to 25 years, they are studying in the department of physical education and sports sciences, Annamalai University, Chidambaram, Tamil Nadu. The selected subjects were divided into two equal groups of fifteen subjects each, namely parcourse training group and control group. The parcourse training group trained for three alternative days in a week for twelve weeks with three sets per exercise per session at 60 to 80% with a progressive increase in load with the number of weeks. Speed and strength endurance were selected as criterion variables and they were tested by using 50 metres dash and Bent knee sit-ups respectively. ANCOVA was used to find out the significant difference if any between the groups. The results of the study showed that there was a significant difference on selected criterion variables such as speed and strength endurance between parcourse training group and control group.*

INTRODUCTION

Quality of performance has become the key factor for personal progress. The desire for a high level of achievement needs to concentrate on the prerequisites in the field of sports and games. It appears as if the whole system of performance revolves round the motor abilities that an individual possesses.

Parcourse was the originally designed for outdoor interval training to accommodate broad scale community or group fitness. It is also an excellent decorative enhancement with its natural timber form construction. The individual exercise stations are usually install as fixed intervals, several hundred feet apart in a linear or looping circuit so that particulars can walk or jog from one station to another station to the next where they can perform a variety of designated exercises involving stretching, balance, agility and strength.

Parcourse consists of a path or course equipped with obstacles or stations distributed along its length for exercising the human body to promote good health. Physical fitness is one of the most important factors that determine the performance level of an individual. The field of physical education has two types of fitness such as (i) performance related fitness which is specific oriented to athletic performance and (ii) health related fitness that stands for general functional fitness.

STATEMENT OF THE PROBLEM

The purpose of this study was to investigate the effects of parcourse training on selected performance related physical fitness parameters of handball players.

METHODOLOGY

To achieve this purpose, thirty handball players studying in the department of physical education and sports sciences, Annamalai University in the age group of 18 to 25 years were selected as subjects at random with their consent. The selected subjects were divided into

two equal groups of fifteen subjects each namely parcourse training group and control group. The selected criterion variables were assessed using standard tests and procedures, such as speed and strength endurance were tested before (pre) and after (post) the training program for both experimental and control group by using 50 meters dash and sit-ups respectively.

The selected subjects had undergone the parcourse training for twelve weeks, with three days per week in alternate days. After 10 to 15 minutes of warm-up the subjects underwent their respective parcourse training programme and the subjects performed 6 to 12 repetitions of parcourse training regimen, a series of eight exercise stations were formed in a standard 400 meters track. The subjects moved from one station to another station, by jogging. The number of repetition was progressively increased once in two weeks. The control group did not participate in any specialized training during the period of study.

EXPERIMENTALDESIGN AND STATISTICAL TECHNIQUE

The experimental design used for the present investigation was random group design involving 30 subjects for training effect. Analysis of covariance (ANCOVA) was used as a statistical technique to determine the significant difference, if any, existing between pre-test and post-test data on selected dependent variables separately and presented in Table-I.

Table – I:

Variables	Test		Parcourse Training Group	Control Group	Source of Variance	SS	df	Mean Square	'F' Ratio
Speed	Pre test	Mean	7.24	7.17	Between	0.03745	1	0.03745	0.520
		S.D	0.26	0.28	Within	2.017	28	0.07202	
	Post test	Mean	6.69	7.12	Between	1.391	1	1.391	13.807
		S.D	0.22	0.39	Within	2.821	28	0.101	
	Adjusted Post test	Mean	6.65	7.15	Between	1.823	1	1.823	48.517
			Within	1.014	27	0.03757			
Strength Endurance	Pre test	Mean	47.00	47.27	Between	0.533	1	0.533	0.112
		S.D	1.93	2.40	Within	132.92	28	4.75	
	Post test	Mean	52.92	47.52	Between	218.700	1	218.7	48.344
		S.D	2.16	2.10	Within	126.67	28	4.53	
	Adjusted Post test	Mean	52.94	47.52	Between	233.785	1	233.785	112.55
			Within	56.081	27	2.077			

(The table value required for significant at .05 level with df 1 and 28; and 1 and 27 are 4.20 and 4.215 respectively).

RESULTS OF THE STUDY

Based on the results of the study indicate that there was a significant difference between parcourse training group and control group on selected criterion variables such as speed and strength endurance.

DISCUSSION ON FINDINGS

The result of the study indicates that the parcourse training group has significantly improved the selected dependent variables namely speed and strength endurance. However, control group did not show any improvement on the selected variables as it was not involved in any of the specific training. The results of the study strongly support with the findings of parcourse training has produced significant improvement on speed and strength endurance.

CONCLUSION

It is concluded that the parcourse training has resulted in significant improvement in selected performance related physical fitness variables such as speed and strength endurance of handball players.

REFERENCE

- [1] Cronin, J.B. and Hanse, K.T., "Strength and Power Predictors of Sports Speed". *J. Strength Cond. Res.*, 19(2): (2005), pp. 349-57. | [2] James Radcliff, C. and Robert Partentines, C., *Plyometrics*, (Human Kinetics, 1985), p. 3. | [3] John W. Bunn, *Scientific Principles of Coaching*, (2nd ed., Englewood Cliffs, New Jersey: Prentice Hall, Inc., 1972), p. 125. | [4] Pothemus and Burkhard, "The Effects of Plyometric Training Drills on the Physical Strength Gains of Collegiate Football Players". *National Strength and Conditioning Association Journal*, 2, (1990), pp. 13-15. | [5] Troy Burger, "Complex Training Compared to a Combined Weight Training and Plyometric Training | Programme", M.S. Thesis – Abstract, *Microform Publication Bulletin*, 1999. | [6] Walter Winter Bottom, *Soccer Coaching*, (2nd ed., London: The Naldrett Press, 1954), pp. 54-67. | [7] Watson, A.W.S., *Physical Fitness and Athletic Performances*, (New York: Longman Inc., 1983). | [8] Wilf and Evelyn Freeman, *Plyometrics*, (IOWA: Championship Books, 1984), p. 1.