



Effects of Parcourse Training on Muscular Endurance among College Men Handball Players

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ABSTRACT

The purpose of the study was to find out the effects of parcourse training on selected muscular endurance among twenty men handball players from Alagappa University College of Physical Education, karaikudi were selected randomly as subjects. The age of the students ranged from 18 to 24 years. The selected subjects were divided into two groups. Group A underwent parcourse training and group B acted as control group. The experimental group was subjected to the training for three days in a week for a period of 6 weeks. The dependent variables namely muscular endurance measured by bent knee sit ups test. The Data were collected from each subject before and after the training period and statistically analyzed by using dependent't' test and analysis of covariance (ANCOVA). It was found that there was a significant improvement in muscular endurance due to the effects of parcourse training.

Keywords : Parcourse training, Muscular endurance and Bent knee sit ups test

INTRODUCTION

Sports in the present world have become extremely competitive. It is not the mere participation or practice that brings out victory to an Individual. Therefore, Sports life is affected by various factors like physiology, Biomechanics, sports Training, Sports medicine, Sociology and Psychology extra. Coaches, trainers, physical education personal and doctors are doing their best to improve the performance of the players of their country. Athletes/players of all countries are also trying hard to bring laurels/medals for their countries in international competitions.

A parcourse, sometimes referred to as a par course or obstacle course, is a form of specialized fitness trail set up with climbing barriers and other physical challenges to heighten the training speed and abilities of people who regularly use them. Outdoor parcourse fitness trails exist in many countries, including the US, UK, Canada, Switzerland, Luxembourg, and New Zealand. They are not only designed for use by the public, but are also a common method of initial physical basic training for military men and women and are also used by off-duty military personnel as a form of recreational activity. Parcourse is a training technique that combines continuous training with exercise done at stations along the course.

Public parcourse designs are often built into nature trails and incorporate exercise equipment made out of the natural timber and the terrain of the surroundings. They include such exercise stations as balance beams, bars for chip ups and for hanging by one's hands as they progress from bar to bar, rope climbing, swinging rope obstacles, and more. A typical parcourse includes enough spacing between exercise equipment so that participants can do some free running from event to event, and is often built in a circular pattern so that the course can be completed as many times as one wants without ending up at a distance from their starting point. Each exercise station usually displays a complete description of how the equipment should be used in a safe and effective manner, so that the parcourse offers a full range of strength and agility training for the body.

HYPOTHESIS

1. There would be a significant improvement on muscular endurance due to parcourse training among college men Hand ball players.
2. There would be a significance difference between parcourse training group and control group on muscular endurance among college men Hand ball players.

METHODOLOGY

The purpose of the study was to find out the effects of parcourse training on muscular endurance among college men Hand ball players. To achieve this purpose of the study, twenty men students studying in the college of Physical Education, Alagappa University, Karaikudi, Tamilnadu were selected as subjects and they were divided into two equal groups of ten subjects each, such as parcourse training group and control group. The Group I underwent parcourse training programme for three days per week for six weeks and Group II acted as control which did not participate in any special training programme apart from the physical education activities as per the curriculum. The following criterion variable namely muscular endurance was selected as criterion variables and was tested by using bent knee sit ups test. The Data were collected from each subject before and after the training period and statistically analyzed by using dependent't' test and analysis of covariance (ANCOVA). 0.05 level of confidence was fixed to find out the significant improvement and differences among the groups on selected variables namely muscular endurance.

ANALYSIS OF THE DATA

The effects of independent variable on selected muscular endurance were determined through the collected data by using appropriate statistical techniques and the results are presented below.

The analysis of dependent't' test on the data obtained for muscular endurance of the pre-test and post-test means of parcourse training and control groups have been analysed and presented in table I.

TABLE –I
THE SUMMARY OF MEAN AND DEPENDENT‘t’ TEST
FOR THE PRE AND POST TESTS ON MUSCULAR EN-
DURANCE OF PARCOURSE TRAINING AND CONTROL
GROUPS

	Parcourse Training Group	Control Group
Pre test mean	31.9	31.5
Post test mean	34.3	31.3
‘t’ test	14.70*	0.61

***Significant at 0.05 level. (Muscular endurance in Numbers) (The table value required for .05 level of significance with df 9 is 2.26).**

The Table I show that the pre-test means value of muscular endurance in parcourse training and control groups is 31.9 and 31.5 respectively. The post test means are 34.33 and 31.3 respectively. The obtained dependent t-ratio values between the pre and post test means of parcourse training and control groups are 14.70 and 0.61 respectively. The table value required for significant difference with df 9 at 0.05 level is 2.26. Since, the obtained ‘t’ ratio value of experimental group is greater than the table value, it is understood that parcourse training had significantly improved the muscular endurance performance. 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.

The analysis of covariance on muscular endurance of parcourse training and control groups have been analysed and was presented in Table II.

TABLE – II
ANALYSIS OF COVARIANCE ON MUSCULAR EN-
DURANCE OF PARCOURSE TRAINING AND CONTROL
GROUPS

Adjusted post test means		Source of variance	Sum of squares	DF	Mean squares	Obtained F-Ratio
Parcourse Training Group	Control Group	Between	36.49	1	36.49	68.76*
34.18	31.42	Within	9.02	77	0.53	

***Significant at .05 level of confidence (The table values required for significance at .05 level of confidence with df 1 and 17 is 4.45)**

The table II shows that the adjusted post test means of muscular endurance on parcourse training and control groups are 34.18 and 31.42 respectively. The obtained ‘F’ ratio value is 68.76 which are higher than the table value of 4.45 with df 1 and 17 required for significance at 0.05 level. Since the value of F- ratio is higher than the table value, it indicates that there is significant difference among the adjusted post test means of parcourse training and control groups on muscular endurance.

The results of the study showed that there was a significance difference between the adjusted post test mean of parcourse training group and control group on muscular endurance.

Adjusted post test means of Parcourse Training and Control groups on Muscular endurance have been presented in figure I.

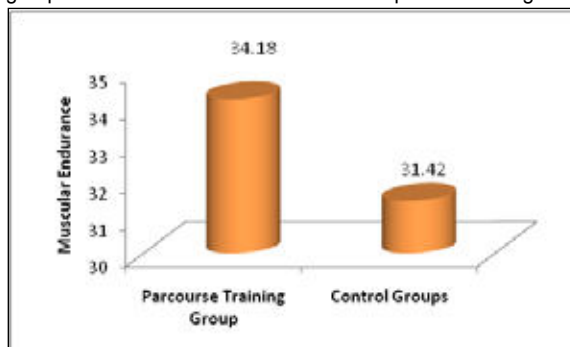


FIGURE 1: ADJUSTED POST TEST MEANS OF PARCOURSE TRAINING AND CONTROL GROUPS ON MUSCULAR ENDURANCE

CONCLUSION

1. There was a significant improvement on muscular endurance due to the effect of the parcourse training among college men Hand ball players.
2. There was a significance difference between parcourse training group and control group on muscular endurance among college men Hand ball players.

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