**EFFECT OF CIRCUIT TRAINING ON STRENGTH AMONG MEN FOOTBALL PLAYERS**

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**Abstract**

The purpose of the study was to find out the effect of circuit training on strength among men football players. To achieve the purpose of the study, sixteen (16) college men sprinters were selected randomly as subjects from St.Johns College of Physical Education, Veeravanallur. Their age ranged from 17 to 25 years. The players who are participated in college level Football players were randomly selected as subjects. The selected subjects underwent Circuit training for alternative three days per week up to six weeks. The selected fitness related components were selected as criterion variable Strength. The above selected variables were tested by using standardized Test. The sample of the present study has been delimited to the twelve (16) college men Football players . All the subjects were tested on selected variables prior to and immediately after the training period. Subjects were selected on pre and post test single group design. The results of the study shows that there was significant improvement in the Strength variable and the analyses were carried out through various statistical technique such as descriptive statistics and Dependent ‘t’ test.

To achieve the purpose of the study, sixteen (16) college men football players were selected randomly as subjects from St.Johns College of Physical Education, Veeravallur. Their age ranged from 17 to 25 years. The players who are participated in college level football tournaments were randomly selected as subjects. The selected subjects underwent circuit training for alternative three days per week up to six weeks. The selected fitness related components were selected as criterion variables strength and endurance. The above selected variables were tested by using standardized Test. The sample of the present study has been delimited to the sixteen (16) college men football players. All the subjects were tested on selected skills prior to and immediately after the training period. Subjects were selected on pre and post test single group design.

 Introduction

Sports training aims at education and performance enhancement based on scientific principles through physical exercise. It is a basic groundwork of sportsman for elite performance. The development of physical fitness includes organic functions and increasing the strength and stability of the musculo-skeletal system (hardayal singh, 1991).

Circuit training was invented in 1953 as an efficient way for coaches to train many athletes in a limited amount of time with limited equipment. The exerciser moved through a series of weight training or calisthenics arranged consecutively. It was a fast paced workout of 15 to 45 seconds per station with little (15 to 30 seconds) or no rest between stations.

The Contemporary history of football spans more 100 years . All began in 1863 in England. When rugby football and association football in branched of different courses and the world’s first football association was founded (football association). Both forms of football stemmed from a common root and both have along and, intricately branched ancestral tree the spread of football outside of great Britain mainly due to the Britain influence aboard started slow, but it soon gathered. Momentum and spread rapidly do all parts of the world.

**OBJECTIVES OF THE STUDY**

1. To find out the effect of circuit training shows any changes on strength variable among men football players.

**STATEMENT OF THE PROBLEM**

 The purpose of the study was to find out the effect of circuit training on strength and endurance variables among men football player.

HYPOTHESES

It has been scientifically accepted that any systematic practice and training over a period of time would lead to produce changes in selected dependent variable. Based on the study conducted and reviewing the related literature available in the area, the investigator framed the hypothesis and it was tested at 0.05 level confidences.

1. There would be significant improvement on strength due to the effect of circuit training.

**MATERIALS AND METHODS**

To achieve the purpose of the study, sixteen (16) college men football players were selected randomly as subjects from St.Johns College of Physical Education, Veeravallur. Their age ranged from 17 to 25 years. The players who are participated in college level football tournaments were randomly selected as subjects. The selected subjects underwent circuit training for alternative three days per week up to six weeks. The selected fitness related components were selected as criterion variables strength and endurance. The above selected variables were tested by using standardized Test. The sample of the present study has been delimited to the sixteen (16) college men football players. All the subjects were tested on selected skills prior to and immediately after the training period. Subjects were selected on pre and post test single group design.

The pre and post test single group design was used as experimental design in which twelve college football players from St.Johns College of Physical Education, Veeravanallur were selected as subjects. Players who participated in the college level football tournaments were selected as subjects. The subjects were tested on the selected criterion variables such as strength and endurance prior to and immediately after the training period.

**RESULTS**

The collected data from the experimental group prior to and immediately after the training period on selected criterion variables were statistically analyzed with dependent “t” test to find out the significant improvement between pre and post-test means of experimental group. In all the cases .05 level of significant was fixed to test the hypothesis.

The results of the pre and post test single group study, in response to the group’s equivalence are in chapter III. Hypothesis regarding the compare the effect of circuit training on strength and endurance among college football players were tested, and the findings of testing this hypothesis were presented.

The analysis of dependent ‘t’ test on the data obtained for strength of the pre test and post test means of experimental group have been analyzed and presented in table III

##### TABLE III

##### THE SUMMARY OF MEANS, STANDARD DEVIATIONS AND DEPENDENT‘t’-TEST FOR THE PRE AND POST TESTS ON STRENGTH OF EXPERIMENTAL GROUP

|  |  |  |  |
| --- | --- | --- | --- |
| **Test** | **Number** | **Mean** | **Standard Deviation** |
| Strength | Pre test | 16 | 24.562 | 3.949 |
| Post test  | 16 | 26.625 | 3.981 |
| **‘t’-test** | **33.00\*** |

**\***Significant at .05 level.

(Endurance in Meters)

(The table value required for .05 level of significance with df 15 is **2.131**)

The table III shows that the obtained pre and post test mean values of experimental group was 24.562 and 26.625 respectively and the obtained dependent ‘t’-ratio values between the pre and post test means of experimental group was 33.0 The table value required for significant difference with df 15 at .05 level is 2.131. Since, the obtained ‘t’ ratio value of experimental group are greater than the table value, it is understood that circuit training had significantly improve the performance on strength among college men football players.

###### FIGURE - I : MEAN VALUES OF CIRCUIT TRAINING GROUP ON STRENGTH

**DISCUSSION ON HYPOTHESIS**

The results of the study indicated that there was significant difference exists between pre and post test on Strength due to Circuit Training.

It was hypothesized that there would be significant difference between pre and post test on Strength. The results of the study showed the results accordance with researcher research hypothesis, there was significant difference exists between pre and post test on Strength the post test had better performance on Strength when compared to pre test. Hence, the researcher first research hypothesis was accepted and the null hypothesis was rejected.

**CONCLUSIONS**

From the analysis of the data, the following conclusions are drawn.

1. There was a significant difference in strength for college football players’ pre and post test. Hence, the post had a better performance on strength.

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