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Influence of Explosive Resistance Training on Explosive Strength among Volleyball Players

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Abstract

The purpose of the study was to find out the influence of explosive resistance training on explosive strength among volleyball players. To achieve the purpose of the present study, thirty volleyball players from Trichy district, Tamilnadu, India were selected as subjects at random and their ages ranged from 18 to 23 years. The study was formulated as a true random group design, consisting of a pre-test and post-test. The subjects (n=30) were randomly assigned to two equal groups as explosive resistance training group (ERG) and control group (CG) in an equivalent manner. The experimental group participated for a period of six weeks for alternate three days in a week and the post-tests were taken. To find out the difference between the two groups paired 't' test was used. The result reveals that the explosive resistance training group showed better performance on explosive strength than the control group.

Keywords: Physical Exercises, BMI, Volleyball players.

Introduction

Resistance training increases muscle strength by act against resistance. Resistance training can increase muscle strength and bone density and reduce body fat. Resistance training, also called weight training or strength training is pitting muscles against a resistance such as a weight or other type of resistance, to build the strength, anaerobic endurance and increase size of skeletal muscles. Strength training involves the microscopic tearing of the muscle fibers by exceeding their capacity to move a weight. As the body rebuilds the fibers, strength increases (Baechle, 1994).

Volleyball is played in more than sixty countries and more than sixty million people. In Eastern Europe, Asia and South America top games draws crowds, the size of which rival those at soccer matches. Volleyball is considered as a top level competitive sport in more than twenty countries.

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Methods

The purpose of the study was to find out the influence of explosive resistance training on explosive strength among volleyball players. To achieve the purpose of the present study, thirty volleyball players from Trichy district, Tamilnadu, India were selected as subjects at random and their ages ranged from 18 to 23 years. The study was formulated as a true random group design, consisting of a pre-test and post-test. The subjects (n=30) were randomly assigned to two equal groups as explosive resistance training group (ERG) and control group (CG) in an equivalent manner. The experimental group participated for a period of six weeks for alternate three days in a week and the post-tests were taken. To find out the difference between the two groups paired 't' test was used. Data were analyzed using SPSS (Statistical Package for Social Science) version 15.0. The level of significance was fixed at 0.05.

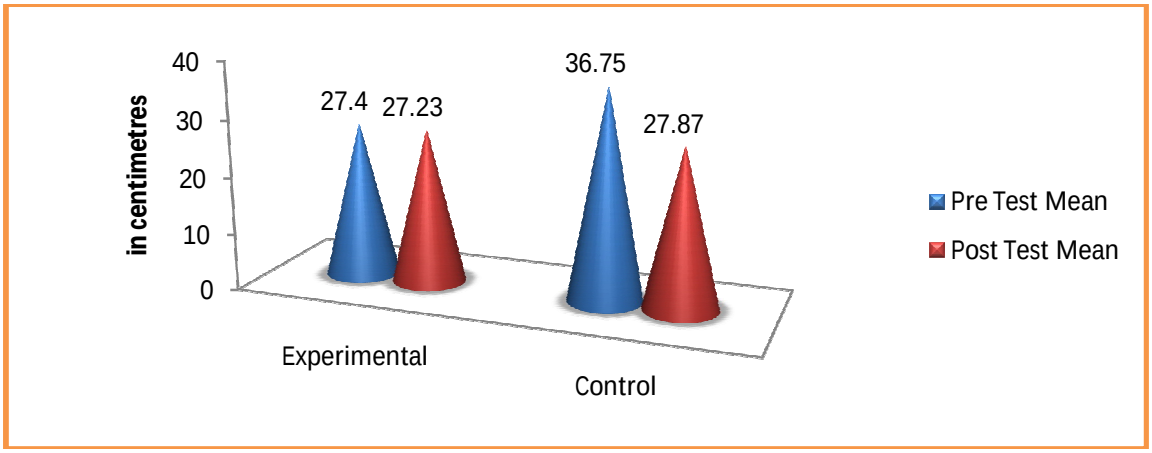
Results and Discussion

The results for both the experimental and control groups were analysed through paired 't' ratio and the discussion part were presented in the table below with graphical representation.

Table 1. Summary of 't' Ratio on Explosive strength of Experimental and Control Groups

S.No	Variables	Pre-Test Mean	Post-Test Mean	Mean difference	Std. Dev (±)	σ DM	't' Ratio
Experimental Group							
1	Explosive Strength	27.40	36.75	9.35	5.10	1.30	8.00*
Control Group							
2	Explosive Strength	27.23	27.87	0.64	2.51	0.64	0.14

Table 2. Figure I. Pre and Post Test Differences on Explosive strength of Experimental and Control Groups



Conclusions

In case of explosive strength the results between pre and post (6 weeks) test has been found significantly higher in experimental group in comparison to control group. The findings of the present study have strongly indicates that six weeks of explosive resistance training group had significant influence on explosive strength of volleyball players. Hence the hypothesis earlier set that explosive resistance training would have been significant influence on explosive strength in light of the same the hypothesis was accepted. The result reveals that the explosive resistance training group showed better performance on explosive strength than the control group.

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