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Physical fitness variable response to the influence of resistance training packages of college men

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Abstract
The study was designed to find out the physical fitness variable response to the influence of resistance training packages of college men. To achieve the purpose of the study thirty college men were selected from Vanavarayar institute of agriculture, Pollachi, Coimbatore, Tamil Nadu, their age ranged between 18 and 25 years. They were divided into two equal groups consist of 15 each. The group I (n=15) was considered as experimental group. The group II (n=15) was considered as control group. The investigator did not made any attempt to equate the group. The experimental group underwent resistance training for a period of for 6 weeks and control group did not involve in any specific training. Muscular strength was assessed by sit ups test unit of measurements was in counts. The collected data on physical fitness variable was analyzed by using't' test at 0.05 level of confidence. The result of the present study explored that the muscular strength significantly improved due to the influence of resistance training packages of college men.

Keywords: Resistance training, muscular strength, college men

Introduction
The use of weight Training (WT) via children and young people has attracted multiple pastimes simply to enhance fitness and performance related health components. The National Strength and Conditioning Association (NSCA) defines RT as a specialized form of conditioning involving the innovative use of a extensive way of resistive loads and a range of training modalities designed to enhance health, fitness, and sports activities performance **(** Faigenbaum, 2009) [9].
Weight training program is one of the fine decisions to make for your health, well-being, physical, and mental performance. Weight training on an everyday foundation improves your strength, endurance, confidence, appearance, health, longevity, and pleasant of daily living. Consistent weight training helps limit your stress, control your weight, support your bones, decrease your chance of injury, and, gives you an aggressive aspect in all components of life (Narasimham, 2009) [10].
Training with weight is becoming an increasingly diagnosed as the key technique of training for games to strengthen the suitable physique. It strengthens the muscular tissues and inner organs and promotes the kind of health and dynamism that education is ozone of the elements in enhancing the speed, ability, strength, endurance, flexibility, body aspects and anthropometric measurement (James and Karpoulch, 1983) [11].
Weight training is the use of systematic exercising with weights and it is used simply as means to increase resistance of the muscle contraction. The main objective is now not to study to carry as lots weight as possible, however to extend strength and power for characteristic to some other sports. Weight training refers to interest in physical fitness or importance of strength in particular sports (Hook, 1958) [12].
Weight training is a frequent type of strength coaching for developing the strength and dimension of the skeletal muscles. It makes use of the pressure of gravity (in the structure of weighted bars, dumbbells or weight stacks) to oppose the force generated through muscle by concentric or eccentric contraction. Repetitions, sets, tempo, exercises and force to reason changes in strength, endurance, dimension or formation by means of overloading a crew of muscles (Menoutis, 2014) [13].

Methodology
To achieve the purpose of the study thirty college men were selected from Vanavarayar

institute of agriculture, Pollachi, Coimbatore, Tamil Nadu, their age ranged between 18 and 25 years. They were divided into two equal groups consist of 15 each. The group I (n=15) was considered as experimental group. The group II (n=15) was considered as control group. The investigator did not made any attempt to equate the group. The experimental group underwent resistance training for a period of for 6 weeks and control group did not involve in any specific training. Muscular strength was assessed by sit ups test unit of measurements was in counts. The collected data on physical fitness variable was analyzed by using‘t’ test at 0.05 level of confidence.

Design

The evaluated physical fitness variable Muscular strength was assessed by sit ups test unit of measurements was in counts. The variable were measured at baseline and after 6weeks of resistance training were examined.

Training Program

The training program was lasted for 45 minutes per session in a day, 3 days in a week for a period of six weeks duration. These 45 minutes included 5 minutes warm up and 5 minutes warm down remaining 35 minutes allotted for resistance training programme. Every two weeks of training 5% of intensity was increased from 65% to 75% of work load. The training load was increased from the maximum working capacity of the subjects during the pilot study.

The collected data on above mentioned parameter due to impact of resistance training was analyzed by using ‘t’test to find out the significant improvement between pre and post. In all cases the criterion for statistical significance was set at if 0.05 level of confidence (P<0.05).

Table 1: Computation of ‘T’-Ratio between Pre and Post Test Means on Leg Power of Experimental and Control Group

Group	Tests	Means	SD	T ratio
Experimental group	Pre Test	24.10	1.02	41.35*
	Post Test	27.10	1.07	
Control Group	Pre Test	24.05	0.99	1.43
	Post Test	23.95	1.14	

*Significant at 0.05 level for the degrees of freedom 1 and 14, 2.14

Table I reveals the computation of ‘t’ ratio between mean of pre and posttest on muscular strength of college. The mean values of pre and post-test of experimental group control group and were 24.10,27.10,24.05 and 23.95 counts respectively. The obtained ‘t’ratio of experimental group and control group were 41.35* and 1.43 Hence the required table value 2.145, for the degree of freedom 1 and 14 at 0.05 level of significance. The results clearly indicated that the leg power of the experimental group improved due to the influence of resistance training when compared to control group.

The bar diagram shows the mean values of pre-test and post-test on muscular strength of experimental group and control group.

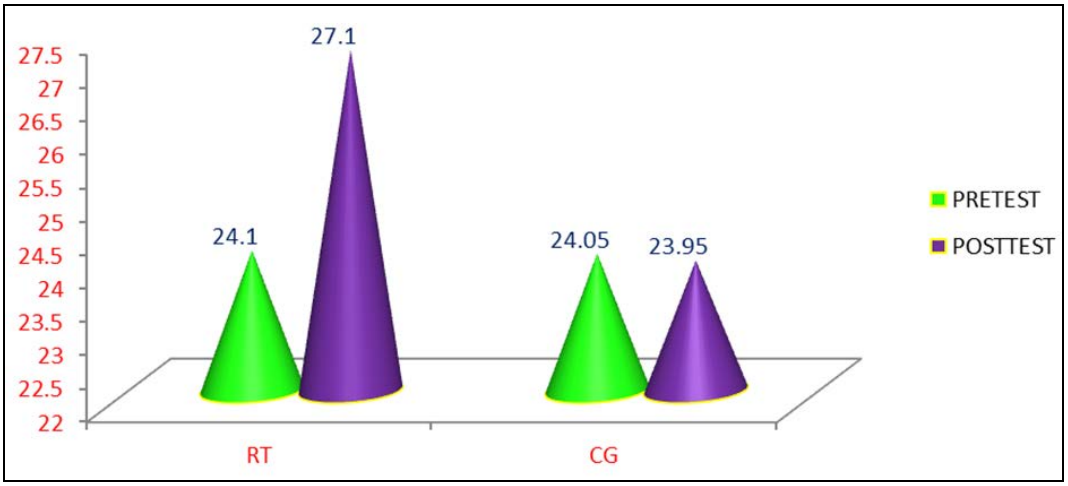

Fig 1: Bar Diagram showing that the Pre-test and Post Test Means of Experimental Group and Control Group on Muscular strength

Discussion on Findings

The results of the study indicated that the physical fitness variable such as leg power improved significantly after six weeks of different traditional games training. In the present study, it was observed that different traditional games training improved the Power to 3.33%. The result shows significant difference in comparison from base line to the post line treatment. However, there was no significant difference observed on Leg Power among the control group. After hopscotch traditional game training, the gross motor skills improved 90 Almoslim (2016) [2] examined the impact of six weeks of combined plyometric-resistance and combined plyometric-sprint trainings Manikandan (2014) [3] experimented the effect of weight training and combination of weight and plyometric training on selected physical fitness variables. Rameswaram *et al.,* (2014) [4] investigated the effect of plyometric and weight training on anaerobic capacity Seenimurugan *et al.,* (2011) [5] examined the effect of resistance training, endurance training and combined training on physical fitness variables Leg power is improved through leapfrog and hopscotch game. Nondi tag and sack race played a vital role to progress power of the leg. Jump rope race and game produced a valuable result towards leg power. Sivaraman *et al.,* assessed the effect of resistance

training on selected performance related fitness variables over speed, shoulder strength, muscular endurance and explosive strength and no change in cardio- respiratory endurance. Sakthivelavan *et al.,* (2009) [1] compared the aerobic capacity in endurance trained and resistance trained athletes. Shahidi *et al.,* (2012) [7] determined the effects of two resistance training types low repetition/high resistance vs. low resistance/high repetition on muscle fitness and anaerobic capacity lower-body explosive power, lower-body muscle endurance, running speed, maximum lower-body strength, and abdominal muscle endurance. Hossain *et al.*, (2016) [6] evaluated the effect of weight training on physical fitness variables muscular strength, abdominal strength endurance and speed.

Conclusion

1. Based on the results of the study it was concluded that the six weeks of resistance training have been significantly improved muscular strength of college men.
2. From the findings of the present study it is postulated that the resistance training is suitable mode to bring out the desirable changes over muscular strength of college men.

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