Indo American Journal of Multidisciplinary Research and Review (IAJMRR)
ISSN: 2581 - 6292 / Impact Factor: 6.885 / Website: www.iajmrr.com

EFFECT OF RESISTANCE TRAINING ON PECTORALIS MUSCLE STRENGTH AMONG BASKETBALL PLAYERS

Dr. M. Sathish* & Dr. K. Rajeshkumar**
* Anthanakurichi Nadu Street, Thiruvaiyar, Thanjavur, Tamilnadu
** Assistant Professor, Department of Physical Education, Tamilnadu Physical Education and Sports University Chennai, Tamilnadu

Cite This Article: Dr. M. Sathish & Dr. K. Rajeshkumar, "Effect of Resistance Training on Pectoralis Muscle Strength among Basketball Players", Indo American Journal of Multidisciplinary Research and Review, Volume 5, Issue 1, Page Number 38-39, 2021.

Abstract:

The purpose of this study was to find out the effect of resistance training on pectoralis muscle strength among men basketball players. To achieve the purpose of the present study, thirty basketball players from Tamilnadu Physical Education and Sports University, Chennai were selected as subjects at random and their age ranged from 18 to 25 years. The subjects were divided into two equal groups. The subjects were divided into two equal groups. 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 of fifteen men subjects each. The groups were assigned as resistance training and control groups in an equivalent manner. The experimental group participated for a period of six weeks and the post-tests were conducted. After completion of treatment they were tested again as it was in the pre-test on all variables used in the present study. This test was assumed as post-test. Analysis of covariance (ANCOVA) was used to test the treatment effect of the training programmes on all the variables used in the study. It was observed that the six weeks of experimental group have significantly improved pectoralis muscle strength of basketball players.

Key Words: Resistance Training, Pectoalis Muscle, Basketball Players

Introduction:

Resistance training is a form of strength training in which each effort is performed against a specific opposing force generated by resistance. Exercises are isotonic if a body part is moving against the force. Exercises are isometric if a body part is holding still against the force. Resistance exercise is used to develop the strength and size of skeletal muscles. Properly performed, resistance training can provide significant functional benefits and improvement in overall health and well being (Karthikeyan, 2014).

Methodology:

The purpose of this study was to find out the effect of resistance training on pectoralis muscle strength among men basketball players. To achieve the purpose of the present study, thirty basketball players from Tamilnadu Physical Education and Sports University, Chennai were selected as subjects at random and their age ranged from 18 to 25 years. The subjects were divided into two equal groups. The subjects were divided into two equal groups. 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 of fifteen men subjects each. The groups were assigned as resistance training and control groups in an equivalent manner. The experimental group participated for a period of six weeks and the post-tests were conducted. After completion of treatment they were tested again as it was in the pre-test on all variables used in the present study. This test was assumed as post-test. Analysis of covariance (ANCOVA) was used to test the treatment effect of the training programmes on all the variables used in the study.

Results and Discussion:

Table 1: Computation of Mean and Analysis of Covariance of Pectoralis Muscle Strength on Experimental and Control Groups

	Experimental Group	Control Group	Source of Variance	Sum of Squares	df	Mean Square	F
Pre Test Mean	42.13	42.20	BG	0.03	1	0.03	0.005
			WG	180.13	28	6.43	
Post Test Mean	53.13	42.00	BG	929.63	1	929.63	125.30*
			WG	207.73	28	7.41	
Adjusted Post Mean	53.12	42.00	BG	928.08	1	928.08	122.24*
			WG	204.98	27	7.59	

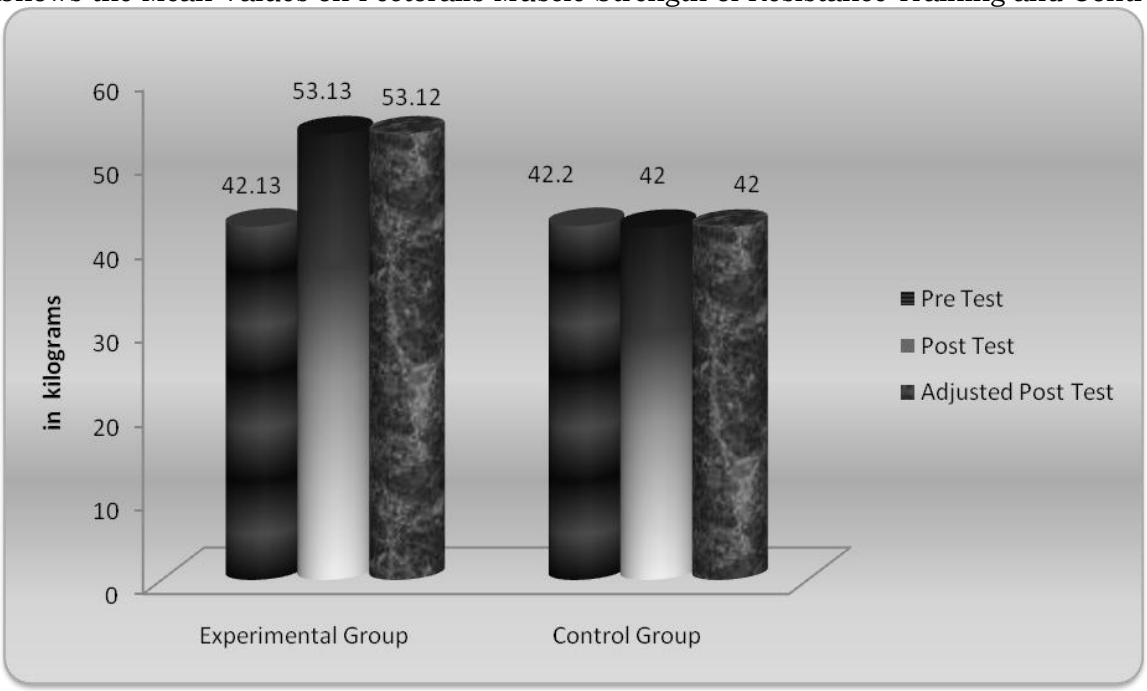
* Significant at 0.05 level

Table value for df 1, 28 was 4.20, df 1, 27 was 4.21

The above table indicates the adjusted mean value of Pectoralis muscle Strength of experimental and control groups were 53.12 and 42.00 respectively. The obtained F-ratio of 122.24 for adjusted mean was greater than the table value 4.21 for the degrees of freedom 1 and 27 required for significance at 0.05 level of confidence. The result of the study indicates that there was a significant difference among experimental and control groups on Pectoralis muscle Strength. The above table also indicates that both pre and post test means of experimental and control groups also differ significantly. The pre, post and

adjusted mean values of Pectoralis muscle Strength of both control and experimental groups are graphically represented in the figure-I.

Figure 1: Shows the Mean Values on Pectoralis Muscle Strength of Resistance Training and Control Groups



Conclusion:

It was observed that the six weeks of experimental group have significantly improved pectoralis muscle strength of basketball players.

References:

1. Kagi, R., Takai, Y., Kato, E., Fukuda, M., Wakahara, T., Ohta, M., Kanehisa, H., Kawakami, Y. & Fukunaga, T. (2009). Relationships between muscle strength and indices of muscle cross-sectional area determined during maximal voluntary contraction in middle-aged and elderly individuals. J Strength Cond Res. 23(4): 1258-1262.
2. Karthikeyan. P. (2014). Effects of Varied Loads of Resistance Training on Selected Strength Parameters. International Journal of Recent Research and Applied Studies, 1 (13), 48 - 51.
3. Kathleen, M. K., Bethany, A. P., Billie, L. & Lorraine, R, B. (2007). The effect of high resistance weight training on reported pain in older adults. Journal of Sports Science and Medicine, 6, 455-460.
4. Kell, R,T. (2011). The influence of periodized resistance training on strength changes in men and women. J Strength Cond Res. 25(3): 735-744.
5. Kerksick, C,M., Wilborn, C,D., Campbell, B,I., Roberts, M,D., Rasmussen, C,J., Greenwood, M. & Kreider, R.B. (2009). Early-phase adaptations to a split-body, linear periodization resistance training program in college-aged and middle-aged men. J Strength Cond Res. 23(3): 962-971.