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EFFECT OF WEIGHT TRAINING ON SHOULDER STRENGTH AMONG COLLEGE STUDENTS

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Abstract:

The purpose of the study was to investigate the effect of weight training on shoulder strength among college students. It was hypothesized that there would be significant differences on shoulder strength due to the effect of weight training among college students. For the present study the 30 male college students from Government Arts and Science College, Tirupattur were selected at random and their age ranged from 18 to 21 years. For the present study pre test - post test random group design which consists of control group and experimental group was used. The subjects were randomly assigned to two equal groups of fifteen each. Group 'A' underwent weight training only, group 'B' have not underwent any training. The data was collected before and after twelve weeks of training. The data was analyzed by applying Analysis of Co-Variance test. The level of significance was set at 0.05. It was observed that the twelve weeks of weight training have significantly improved the shoulder strength of college students.

Key Words: Weight Training, Shoulder Strength, College Students.

Introduction:

Weight training is the practice of strengthening oneself through exercise using a barbell apparatus. Increasing strength and power through general exercises is the goal of general weight training. The purpose of specific weight training is to build up a particular strength for a particular game or event. The volume and intensity of weight training also vary with the season. The most common and widely used technique for building strength and power is weight training. Muscle strength, power, and endurance are all enhanced by weight training. Muscle fibre size is primarily increased by resistance training. Muscle protein content rises quickly during this training, involving metabolic reactions (Dominic & Muthueleckuvan, 2014). Weight training can cause muscle hypertrophy, in part because it causes muscle fibres to enlarge. Furthermore, high resistance training can shift the distribution of fibre types towards faster twitch fibres. Training speeds appear to be closely associated with an improvement in muscle strength training through isolated movements. Resistance training has been shown to improve muscle mass or quality, which can increase an older adult's capacity to produce force (Jayaraman, 2011).

Methodology:

The purpose of the study was to investigate the effect of weight training on shoulder strength among college students. It was hypothesized that there would be significant differences on shoulder strength due to the effect of weight training among college students. For the present study the 30 male college students from Government Arts and Science College, Tirupattur were selected at random and their age ranged from 18 to 21 years. For the present study pre test - post test random group design which consists of control group and experimental group was used. The subjects were randomly assigned to two equal groups of fifteen each. Group 'A' underwent weight training only, group 'B' have not underwent any training. Pull ups test was used to assess the shoulder strength. The data was collected before and after twelve weeks of training. The data was analyzed by applying Analysis of Co-Variance test. The level of significance was set at 0.05.

Results:

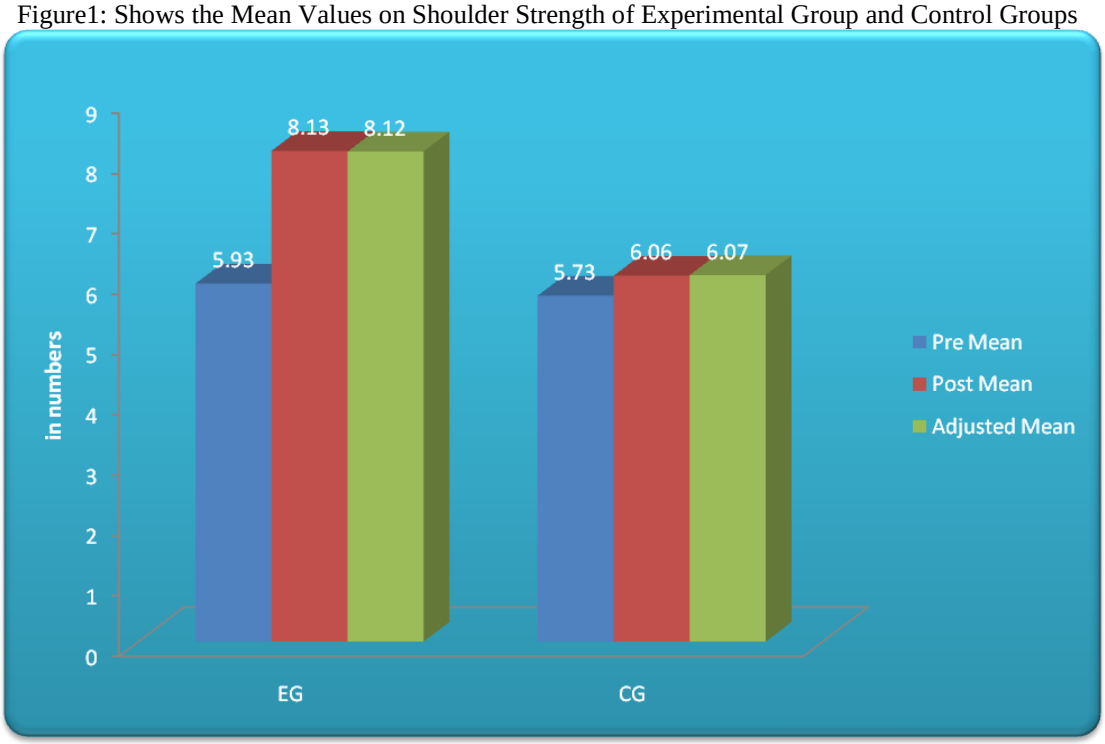
Table 1: Computation of Mean and Analysis of Covariance of Shoulder Strength of Experimental and Control Groups

	Experimental Group	Control Group	Source of Variance	Sum of Squares	df	Mean Square	F
Pre Test Mean	5.93	5.73	BG	0.30	1	0.30	0.60
			WG	13.86	28	0.49	
Post Test Mean	8.13	6.06	BG	32.03	1	32.03	39.57*
			WG	22.66	28	0.81	
Adjusted Post Mean	8.12	6.07	BG	30.74	1	30.74	36.85*
			WG	22.52	27	0.83	

* Significant at 0.05 level table value for df 1 and 28 was 4.20, 1 and 27 was 4.21

The above table indicates the adjusted mean value of shoulder strength of experimental and control groups were 8.12 and 6.07 respectively. The obtained F-ratio of 36.85 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 shoulder strength. The above table also indicates that both pre and post test means of experimental and control groups differ significantly. The pre, post and adjusted post mean values of shoulder strength of both experimental and control groups are graphically represented in the figure 1.

Figure1: Shows the Mean Values on Shoulder Strength of Experimental Group and Control Groups



Conclusion:

It was observed that the twelve weeks of weight training have significantly improved the shoulder strength of college students.

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