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WEIGHT TRAINING'S IMPACT ON SPECIFIC PHYSICAL CHARACTERISTICS OF VOLLEYBALL PLAYERS

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Abstract:

The purpose of the study was to find out the effect of weight training on selected physical fitness components among volleyball players. To achieve the purpose of the present study, thirty volleyball players from Karnataka were selected as subjects at random and their ages ranged from 18 to 21 years. The subjects were divided into two equal groups at random. The subjects were divided into two equal groups of fifteen subjects each. Group I acted as Experimental Group (Weight Training) and Group II acted as Control Group. The requirement of the experiment procedures, testing as well as exercise schedule was explained to the subjects so as to get full co-operation of the effort required on their part and prior to the administration of the study. Pre test was conducted for all the subjects on selected physical fitness components. This initial test scores formed as pre test scores of the subjects. The groups were assigned as Experimental Group and Control Group in an equivalent manner. Experimental Group was exposed to weight training and Control Group was not exposed to any experimental training other than their regular daily activities. The duration of experimental period was 12 weeks. After the experimental treatment, all the thirty subjects were tested on their physical fitness components. This final test scores formed as post test scores of the subjects. The pre test and post test scores were subjected to statistical analysis using Analysis of Covariance (ANCOVA) to find out the significance among the mean differences. In all cases 0.05 level of significance was fixed to test hypotheses. It was concluded that there was significant improvement on agility and explosive power due to weight training when compared to control group.

Key Words: Weight Training, Volleyball, Physical

Introduction:

The mechanics and material science of quality preparing and consolidating those standards into our preparation program will give our competitors an aggressive edge. Weight preparing is a key segment of all work out schedules for people who practice for the medical advantages. Obviously, competitors in sports requiring quality and power, for example, weight lifting; working out and dashing must underline weight preparing. However numerous different competitors additionally advantage from quality preparing, particularly those in sports requiring an abnormal state of solid continuance. The weight preparing is the preparation of doing exercise with the assistance of the barbell mechanical assembly to expand the quality. General weight preparing is to build the quality and the power through general activities. Particular weight preparing is to create particular quality of an occasion or a particular diversion. As indicated by the season, the volume and power of weight preparing additionally change. Weight preparing is the most generally utilized and well known technique for expanding quality and power. Volleyball involves approximately 450 million registered participants from over 200 national federations belonging to the Federation Internationale de Volleyball (FIBA).

Methodology:

The purpose of the study was to find out the effect of weight training on selected physical fitness components among volleyball players. To achieve the purpose of the present study, thirty volleyball players from Karnataka were selected as subjects at random and their ages ranged from 18 to 21 years. The subjects were divided into two equal groups at random. The subjects were divided into two equal groups of fifteen subjects each. Group I acted as Experimental Group (Weight Training) and Group II acted as Control Group. The requirement of the experiment procedures, testing as well as exercise schedule was explained to the subjects so as to get full co-operation of the effort required on their part and prior to the administration of the study. Pre test was conducted for all the subjects on selected physical fitness components. This initial test scores formed as pre test scores of the subjects. The groups were assigned as Experimental Group and Control Group in an equivalent manner. Experimental Group was exposed to weight training and Control Group was not exposed to any experimental training other than their regular daily activities. The duration of experimental period was 12 weeks. After the experimental treatment, all the thirty subjects were tested on their physical fitness components. This final test scores formed as post test scores of the subjects. The pre test and post test scores were subjected to statistical analysis using Analysis of Covariance (ANCOVA) to find out the significance among the mean differences. In all cases 0.05 level of significance was fixed to test hypotheses.

Results:

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

	Experimental Group	Control Group	Source of Variance	Sum of Squares	df	Mean Square	F
Pre Test Mean	11.15	11.14	BG	0.001	1	0.001	0.14
			WG	0.18	28	0.006	
Post Test Mean	10.73	11.12	BG	1.18	1	1.18	92.40*
			WG	0.35	28	0.01	
Adjusted Post Mean	10.72	11.12	BG	1.19	1	1.19	94.76*
			WG	0.34	27	0.01	

* 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 agility of experimental and control groups were 10.72 and 11.12 respectively. The obtained F-ratio of 94.76 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 agility. 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 agility of both experimental and control groups are graphically represented in the figure 1.

Figure 1: Shows the Mean Values on Agility of Experimental Group and Control Groups

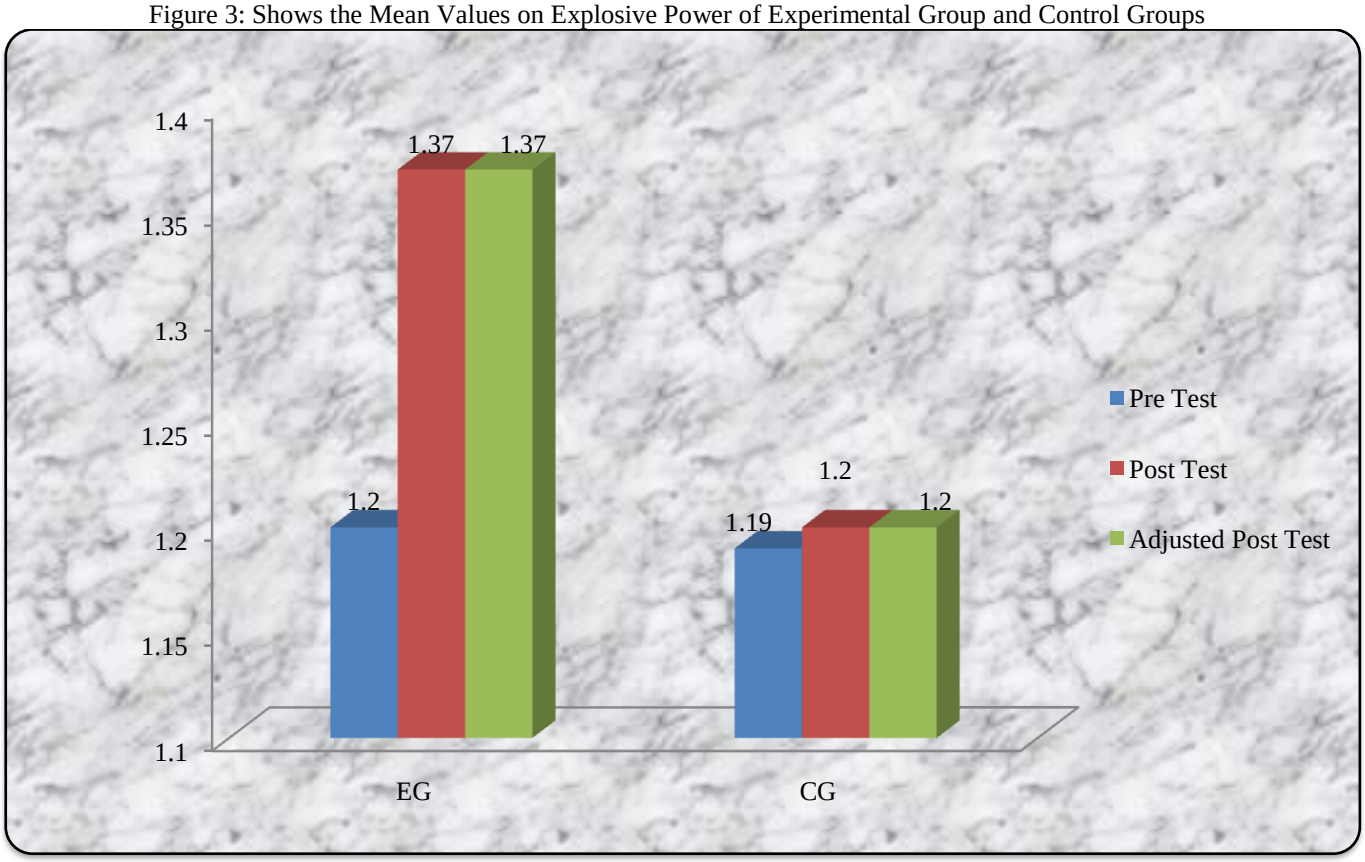
Table 2: Computation of Mean and Analysis of Covariance of Explosive Power of Experimental and Control Groups

	Experimental Group	Control Group	Source of Variance	Sum of Squares	df	Mean Square	F
Pre Test Mean	1.20	1.19	BG	0.002	1	0.002	1.33
			WG	0.04	28	0.002	
Post Test Mean	1.37	1.20	BG	0.21	1	0.21	55.04*
			WG	0.10	28	0.004	
Adjusted Post Mean	1.37	1.20	BG	0.20	1	0.20	50.78*
			WG	0.10	27	0.004	

* 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 explosive power of experimental and control groups were 1.37 and 1.20 respectively. The obtained F-ratio of 50.78 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 explosive power. 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 explosive power of both experimental and control groups are graphically represented in the figure 2.

Figure 3: Shows the Mean Values on Explosive Power of Experimental Group and Control Groups



Conclusion:

It was concluded that there was significant improvement on agility and explosive power due to weight training when compared to control group.

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