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EFFECT OF COMPLEX TRAINING ON MUSCULAR ENDURANCE AMONG HOCKEY PLAYERS

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Abstract:

The purpose of the study was to find out the effect of complex training on muscular endurance among hockey players. To achieve the purpose of the present study, thirty hockey players from Tamilnadu Physical Education and Sports University, Chennai were selected as subjects at random and their ages ranged from 18 to 25 years. The subjects were divided into two equal groups at random. The subjects were divided into two equal groups of fifteen players each. Group I acted as Experimental Group (complex 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. 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. The experimental group had achieved significant improvement on muscular endurance than the control group.

Key Words: Complex Training, Muscular Endurance

Introduction:

Complex training is a combination of high intensity resistance training followed by plyometrics. Ebben (2002) states that complex training alternates biomechanically similar high load weight training exercises with plyometric exercises, set for set in the same workout. An example of complex training would include performing a set of squats followed by a set of jump squats. As in the case of plyometric training, complex training appears to have its origins in Eastern Europe.

Methodology:

The purpose of the study was to find out the effect of complex training on muscular endurance among hockey players. To achieve the purpose of the present study, thirty hockey players from Tamilnadu Physical Education and Sports University, Chennai were selected as subjects at random and their ages ranged from 18 to 25 years. The subjects were divided into two equal groups at random. The subjects were divided into two equal groups of fifteen players each. Group I acted as Experimental Group (complex 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. 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 and Discussion:

Table 1: Computation of Mean and Analysis of Covariance of Muscular Endurance on Experimental and Control Groups

	Experimental Group	Control Group	Source of Variance	Sum of Squares	df	Mean Square	F
Pre Test Mean	22.33	23.20	BG	5.63	1	5.63	0.78
			WG	201.73	28	7.20	
Post Test Mean	33.06	24.93	BG	496.13	1	496.13	46.32*
			WG	299.86	28	10.71	
Adjusted Post Mean	33.03	24.96	BG	475.98	1	475.98	42.98*
			WG	299.012	27	11.075	

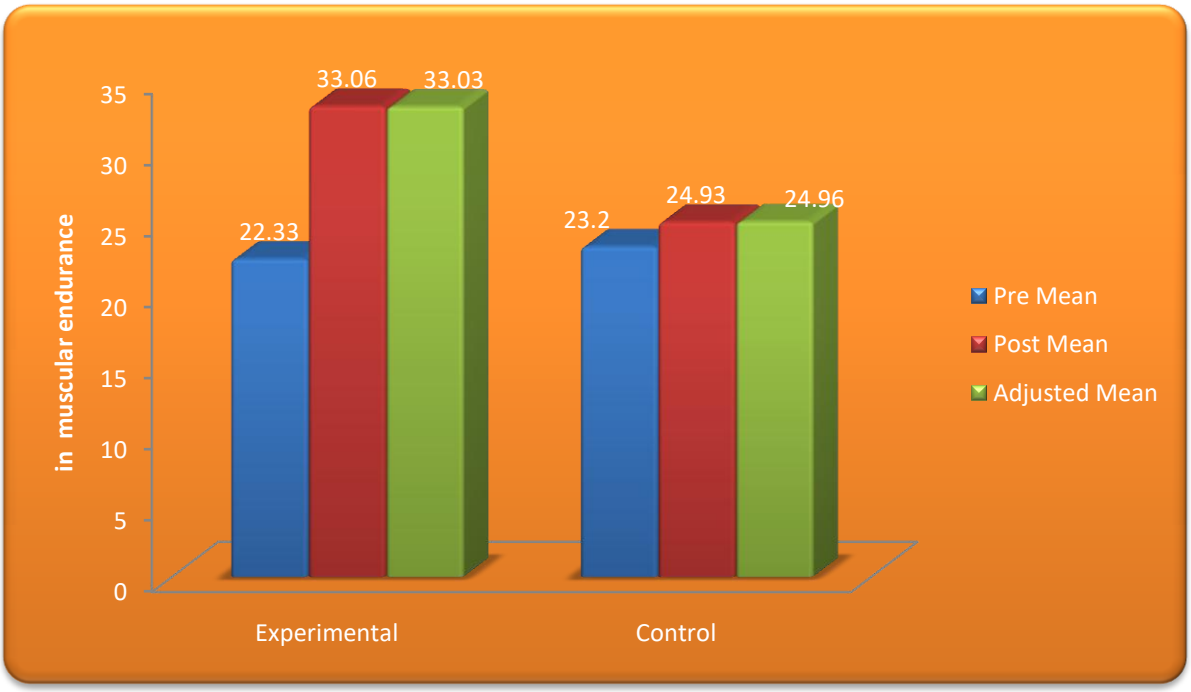
* Significant at 0.05 level

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

The above table indicates the adjusted mean value of muscular endurance of experimental and control groups were 33.03 and 24.96 respectively. The obtained F-ratio of 42.98 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

muscular endurance. 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 muscular endurance of both control and experimental groups are graphically represented in the figure 1.

Figure 1: Shows the Mean Values on Muscular Endurance of Complex Training and Control Groups



Conclusion:

The experimental group had achieved significant improvement on muscular endurance than the control group.

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