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EFFECT OF COMPLEX TRAINING ON RESTING PULSE RATE AMONG HOCKEY PLAYERS

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Abstract:

The purpose of the study was to find out the effect of complex training on resting pulse rate 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 decrease on resting pulse rate than the control group.

Key Words: Complex Training, Resting Pulse Rate

Introduction:

Complex training as alternating biomechanically comparable high-load weight training and plyometric exercises in the same workout. Complex training as various sets of groups/complexes of exercises performed in a manner in which several sets of a heavy resistance exercise are followed by sets of a lighter resistance exercise. These authors also mention the term contrast loading and define this as "the use of exercises of contrasting loads that is, alternating heavy and light exercises set for set". Complex training as the execution of a resistance-training exercise using a heavy load (1-5RM) followed relatively quickly by the execution of a biomechanically similar plyometric exercise (Ebben & Watts, 1998).

Methodology:

The purpose of the study was to find out the effect of complex training on resting pulse rate 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 on Resting Pulse Rate on Experimental and Control Groups

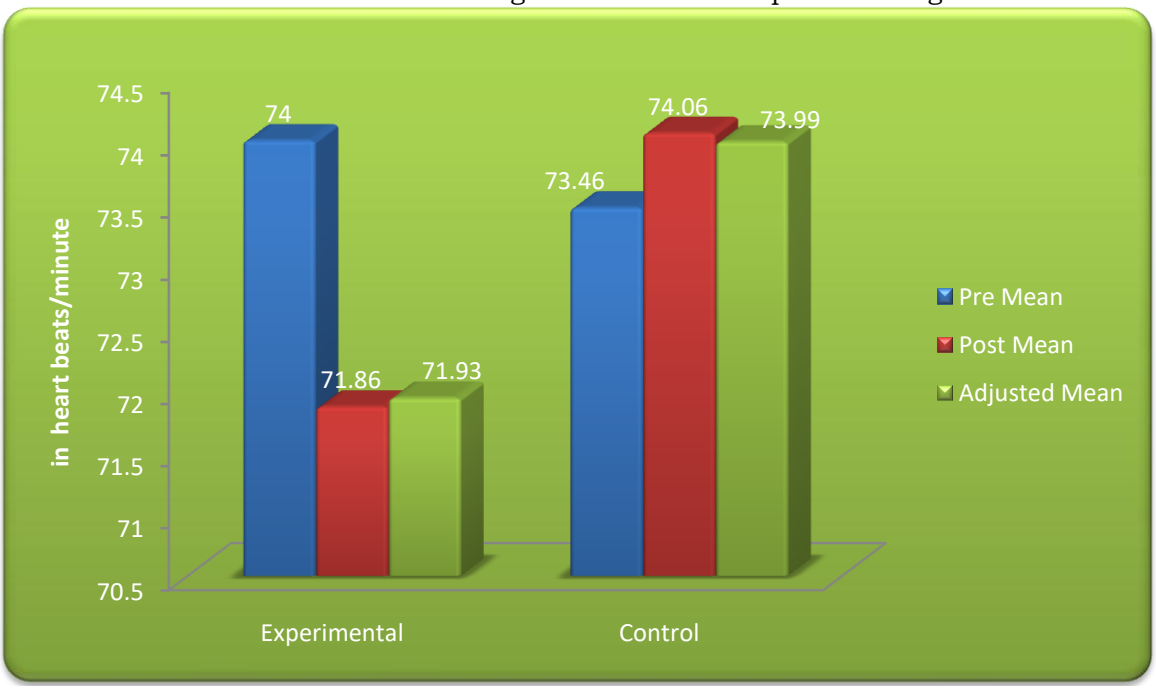
	Experimental Group	Control Group	Source of Variance	Sum of Squares	DF	Mean Square	F
Pre Test Mean	74.00	73.46	BG	2.13	1	2.13	1.88
			WG	31.73	28	1.13	
Post Test Mean	71.86	74.06	BG	36.30	1	36.30	49.18*
			WG	20.66	28	0.73	
Adjusted Post Mean	71.93	73.99	BG	29.75	1	29.75	43.64*
			WG	18.408	27	0.682	

* 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 resting pulse rate of experimental and control groups were 71.93 and 73.99 respectively. The obtained F-ratio of 43.64 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 resting pulse rate. 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 values of resting pulse rate of both control and experimental groups are graphically represented in the figure-I.

Figure 1: Shows the Mean Values on Resting Pulse Rate of Complex Training and Control Groups



Conclusion:

The experimental group had achieved significant decrease on resting pulse rate than the control group.

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