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Effect of resistance training on resting pulse rate of hand ball players

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Abstract
The purpose of the study was to find out the relative effects of Resistance training on resting pulse rate of men hand ballplayers. For this purpose, forty men handball Players who had participated in inter collegiate handball tournaments from Annamalai University were randomly selected as subjects. The selected subjects were divided at random into two groups of twenty each (n=20). Group I underwent resistance training, and Group II acted as Control. The subjects carried out their respective training programmes for three days per week for a period of twelve weeks. Control group did not under go any specific training. The data obtained from the experimental group before and after the experimental period were statistically analyzed with dependent 't'-test,. The level of confidence was fixed at. 05 level for all the cases. The results of the study indicate that there was significant differences among the adjusted posttest means of resistance training group, and Control group on decrease of resting pulse rate.

Keywords: Resting pulse rate, resistance training

Introduction
Weight training can be one of the safest forms of exercise, especially when the movements are slow, controlled, and carefully defined. However, as with any form of exercise, improper execution might result in injury. When the exercise becomes difficult towards the end of a set, there is a temptation to cheat, i.e. to use poor form to recruit other muscle groups to assist the effort. This may shift the effort to weaker muscles that cannot handle the weight.
Weight training can be a very effective form of strength training because exercises, weights, sets and repetitions can be precisely manipulated to challenge individual muscle group in a way found to be the most effective for the individual. Other strength training exercises or equipment may lack the flexibility and precision that weights offer, and often cannot be safely taken to the point of momentary muscular failure.

Methodology
The purpose of the study was to find out the relative effects of Resistance training on resting pulse rate of men hand ballplayers. For this purpose, fourty men handball Players who had participated in inter collegiate handball tournaments from Annamalai University were randomly selected as subjects. The selected subjects were divided at random into two groups of twenty each (n=20). Group I underwent resistance training, and Group II acted as Control. The subjects carried out their respective training programmes for three days per week for a period of twelve weeks. Control group did not under go any specific training. The data obtained from the experimental group before and after the experimental period were statistically analyzed with dependent't'-test.

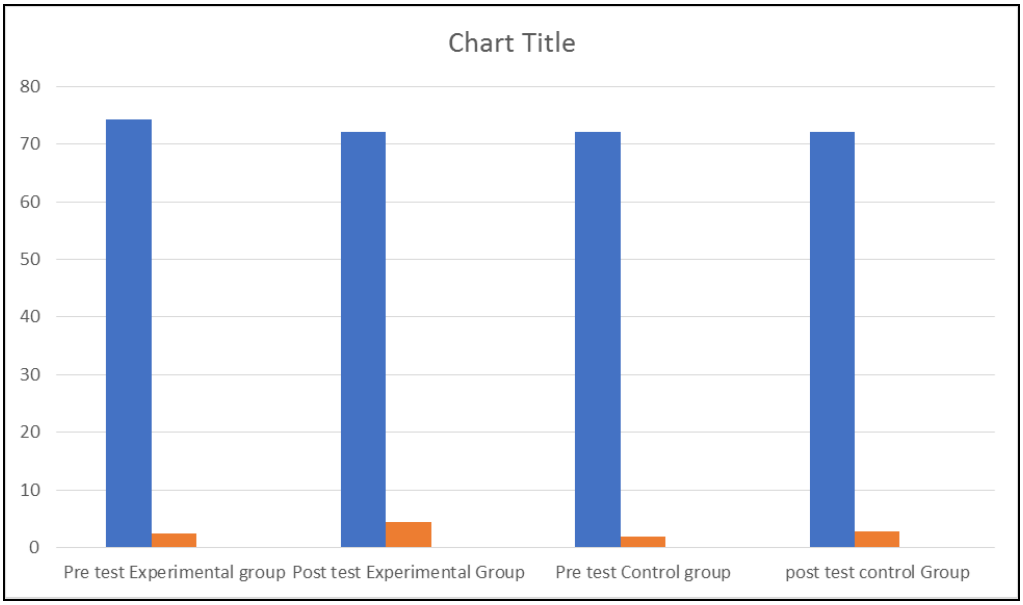
Results
The results of the dependent 't'-test on the data obtained for resting pulse rate of the subjects in the pre-test and post-test of the experimental group and control group have been analyzed and presented in Table I

Table I: The Summary of Mean and Dependent 'T' Test for the Pre and Post Tests on Resting Pulse Rate of Experimental Groups and Control Group

	Resistance training Group – (I)	't'-test
Pre- test mean	74.35	5.54*
Post-test mean	72.05	
	Control group	't'-test
Pre- test mean	72.05	0.24
Post-test mean	72,15	

* Significant at. 05 level.
(Table value required for significance at. 05 level for 't'-test with df 19 is 2.09)

Table I shows the dependent 't' test values between the pre and post test means of resistance training group and Control group were, 5.54 and 0.24 respectively. Since the obtained 't'-test values of experimental group is greater than the table value of 2.09 with df 19 at. 05 level of confidence it is concluded that resistance training group had registered significant decrease in Resting Pulse Rate. Which is shown in the diagram-1



Conclusion

The experimental group resistance training group had significantly decreased in resting pulse rate and respiratory rate.

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