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EFFECT OF CONTINUOUS TRAINING AND INTERVAL TRAININGON SELECTED HEART RATE AMONG COLLEGE LEVEL MEN BOXERS

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Abstract:
The objective of the present study is to identify the effects of continuous training and interval training performances on heart rateamong college level boxers. Methodology:Twelve weeks of continuous trainingwas studied with constant- heart rate procedure and constant-time procedure.Twelve weeks of interval training was studied.ANCOVA statistical analyses have been used to analyses the performance and outcome of the men boxers and Scheffe's post hoc test was used to find out the mean difference of confidence continuous training and Interval training. Result:The submaximal-performance effects on heart rateF-ratio at 0.05 level of confidence for 2 and 87 (df) =3.06, 2 and 86 (df) =3.06. Significant is better than control group.

Keywords*: heart rate, continuous and interval training*

1.0. Introduction

The present study sought to evaluate the inconsistencies previously observed regarding the pre dominance of continuous and interval training for improving heart rate. The experimental design initially equated and subsequently maintained the same relative exercise intensity by both groups throughout the programs. Thirty subjects were equally divided into continuous training (continuous training, exercise at 50% to 60% maximal work) or interval training (30 subject as working group and control group respectively at 100% maximal work) training groups that performed 30 min per day for 3 days in all 12 weeks. Following continuous training and interval training, exercising work rates were parallel examined both the interval training and continuous training.Three equated groups were performed to measure the performance of heart rate; one group act as control group and another two group act as experimental group. Interval training and continuoustraining regimens are used to improved physiological aspect. There is conflicting evidence as to which is the more effective in improving biochemical, physiological, and performance measures (Cunninghametal. 1979). The purpose of this study were to compare the effects of using the same relative work intensities in the two training modes and examine their effect in continuous training and Interval training tests.

2. 0. Methodology

2.1. Sample selection

Simple random procedure was used to select the subjects for the present study. To delimit the present study only male boxers of Tamilnadu were selected. Totally,90 members have been taken as sample size. The samplesize was divided into three groups namely; continuous training group, interval traininggroup and control group.

2.2.Collection of data

A selected package of continuous training and interval training were administered to collect the data. 12 weeks was administered to all three groups. The performance of all

groups was administered for only 30 min per day especially for continuously 3 days in all 12 weeks.

2.3. Analysis

ANCOVA and Scheffe's post hoc test were used for the study. The mean, sum of squares, mean square and f-ratio are identified by using the SPSS package and Microsoft version is used to all the tabular columns and figures.

2.4. Selection of Variables

The various scientific literatures have been reviewed, based on the review heart rate among college level boxers in Tamil Nadu was selected as variables of the present study.

3. 0. COMPUTATION OF ANALYSIS OF COVARIANCE AND POST HOC TEST RESULTS ON HEART RATE

The statistical analysis comparing the initial and final means of heart rate due to Continuous training and Interval training among college level boxers is presented in Table 1.

Table I

ANCOVA RESULTS ON EFFECT OF CONTINUOUS TRAINING AND INTERVAL TRAINING COMPARED WITH CONTROLS ON RESTING HEART RATE

	CONTINUOUS TRAINING	INTERVAL TRAINING	CONTROL GROUP	SOURCE OF VARIANCE	SUM OF SQUARES	df	MEAN SQUARES	OBTAINED F
Pre Test Mean	65.30	64.13	63.00	Between	79.36	2	39.68	1.06
				Within	3271.77	87	37.61	
Post Test Mean	56.83	55.87	63.83	Between	1134.02	2	567.01	19.69*
				Within	2505.80	87	28.80	
Adjusted Post Test Mean	56.63	55.87	64.04	Between	1203.41	2	601.71	21.56*
				Within	2400.47	86	27.91	
Mean Diff	-8.47	-8.27	0.83					

Table F-ratio at 0.05 level of confidence for 2 and 87 (df) =3.06, 2 and 86 (df) =3.06.
*Significantas shown in TableI, the obtained pre test means on Resting heart rate on Continuous training group was 65.30, Interval training group was 64.13 was and control group was 63.00. The obtained pre test F value was 1.06 and the required table F value was 3.06, which proved that there was no significant difference among initial scores of the subjects.

The obtained post test means on Resting heart rate on Continuous training group was 56.83, Interval training group was 55.87 was and control group was 63.83. The obtained post test F value was 19.69 and the required table F value was 3.06, which proved that there was significant difference among post test scores of the subjects.

Taking into consideration of the pre test means and post test means adjusted post test means were determined and analysis of covariance was done and the obtained F value 21.56 was greater than the required value of 3.06 and hence it was accepted that there was significant differences among the treated groups.

Since significant differences were recorded, the results were subjected to post hoc analysis using Scheffe's Confidence Interval test. The results were presented in Table I.

Table II

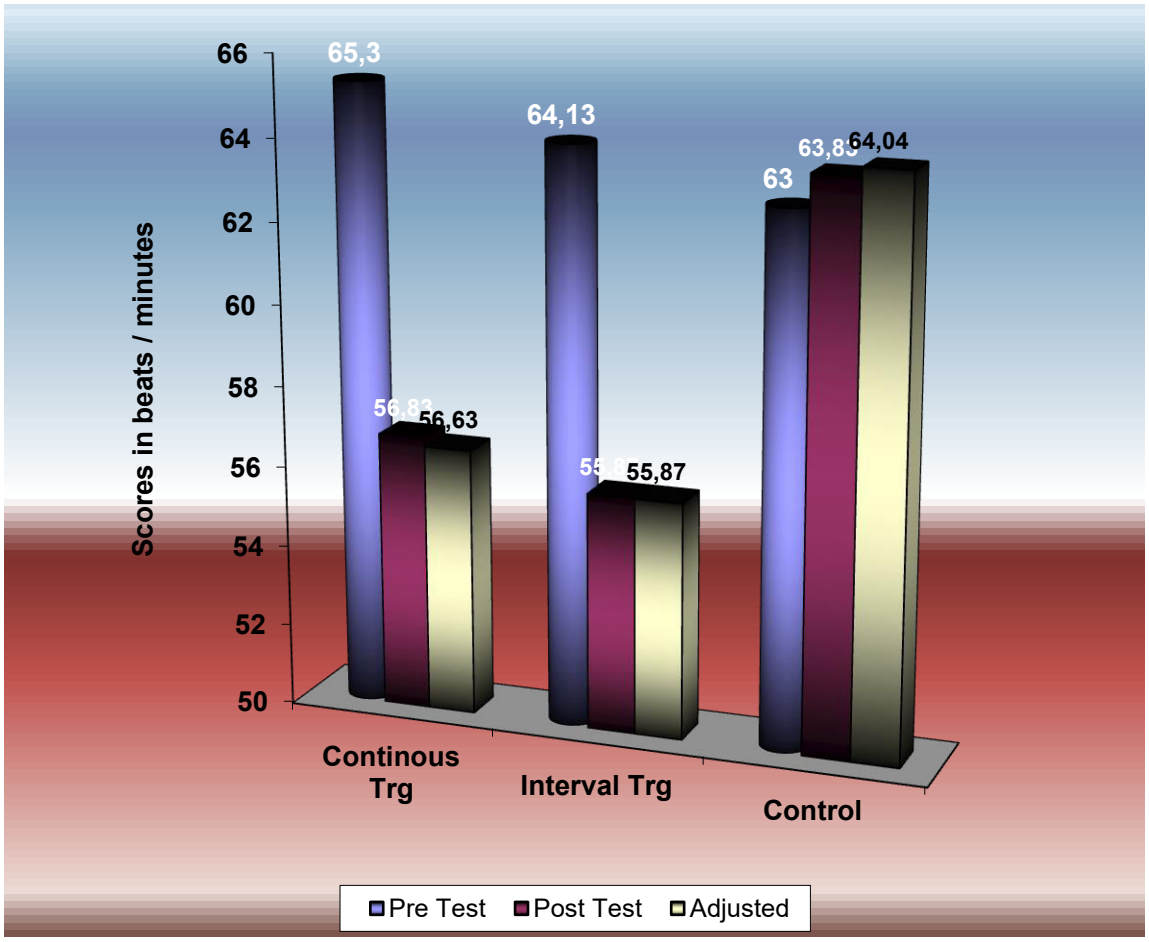
Multiple Comparisons of Paired Adjusted Means and Scheffe's Confidence Interval Test Results on Resting heart rate

MEANS				Required . C I
Continuous training Group	Interval training Group	Control Group	Mean Difference	
56.63	55.87		0.76	3.37
56.63		64.04	-7.41*	3.37
	55.87	64.04	-8.17*	3.37

* Significant

The post hoc analysis of obtained ordered adjusted means proved that there was significant differences existed between Continuous training group and control group (MD: -7.41). There was significant difference between Interval training group and control group (MD: -8.17). There was no significant difference between treatment groups, namely, Continuous training group and Interval training group. (MD: 0.76).

The ordered adjusted means were presented through bar diagram for better understanding of the results of this study in **BAR DIAGRAM1. SHOWING PRE TEST, POST TEST AND ORDERED ADJUSTED MEANS ON RESTING HEART RATE**



3.2 DISCUSSIONS ON FINDINGS ON RESTING HEART RATE

In order to find out the effect of Continuous training and Interval training on Resting heart rate the obtained pre and post test means were subjected to ANCOVA and post hoc analysis through Scheffe's confidence interval test.

The effect of Continuous training and Interval training on Resting heart rate is presented in Table II. The analysis of covariance proved that there was significant difference between the experimental group and control group as the obtained F value 21.56 was greater than the required table F value to be significant at 0.05 level.

Since significant F value was obtained, the results were further subjected to post hoc analysis and the results presented in Table I proved that there was significant difference between Continuous training group and control group (MD: -7.41) and Interval training group and control group (MD: -8.17). Comparing between the treatments groups, it was found that there was no significant difference between Continuous training and Interval training group among college level boxers.

Thus, it was found that continuous training and interval training were significantly better than control group in improving Resting heart rate of the college level boxers.

4.0. RESULTS ON RESTING HEART RATE

The statistical analysis comparing the initial and final means of heart rate Due to Continuous training and Interval training among college level boxers is presented in Table I

5.0. Conclusion

In the present study, the effects of 12 week of exercise(continuous training and interval training), were studied in college level men boxers. The data showsthat here is a significantincrease in theperformanceof heart rare sports training of the college level male boxers.

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