



INFLUENCE OF SLOW CONTINUOUS RUNNING ON SELECTED CARDIO RESPIRATORY ENDURANCE

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Abstract

The purpose of the study was to find out the influence of slow continuous running on cardio respiratory endurance. To achieve this purpose of the study, thirty men students in the Department of Physical Education and Sports and Sciences, Annamalai University were selected as subjects at random. Their age ranged between the 17 to 23years. The selected subjects were divided in two equal groups fifteen each namely slow continuous running group and control group. Group I underwent slow continuous running for five days per week for twelve weeks, whereas Group II acted as the control group who maintained their daily routine activities and no special training was given to them. The following variable namely cardio respiratory endurance was selected as criterion variable. The subjects of the groups was tested on cardio respiratory endurance by using cooper's 12 minutes run/walk test at prior and immediately after the training period. The collected data were analyzed statistically through analysis of covariance (ANCOVA) to find out the significant differences, if any between the groups. The .05 level of confidence was fixed to test the level of significance, which was considered as an appropriate. The results of study showed that there was a significant difference exist between slow continuous running group and control group on cardio respiratory endurance. And also there was a significant improvement on cardio respiratory endurance due to slow continuous running.

Keywords: Slow continuous running, cardio respiratory endurance.

INTRODUCTION

Continuous training is when low- to mid-intensity exercises are performed for more than 20 minutes without resting intervals. Generally, this type of training is used to prepare the body for sustained workouts such as marathons and triathlons, but can also be effective for more casual athletes. It allows the body to work from its aerobic energy stores to improve overall fitness and endurance. Chief benefits of continuous training include fat burning, muscle building, and increasing maximum aerobic potential. Almost any type of exercise can be done in a continuous way. Jogging, cycling, and swimming are often the most common, but the style of exercise is nowhere near as important as the manner in which it is accomplished. The most important part of this type of training is the amount of time spent performing the exercise.

The main goal behind continuity training is to condition the heart for long periods of exertion. Athletes typically start at about 60% of their full capacity, which means that they are working, but not burning themselves out. A light jog or an easy bike ride that lasts an hour or more are good examples of what this might look like. Although professional athletes often use continuity techniques to improve their endurance training, but it is by no means limited to those with superior athletic ability. One of the biggest benefits of a continuous exercise plan is the slow but steady improvement most athletes see over time. Someone who may only be able to jog for eight minutes at the start may find, after enough weeks or months have passed, that 12 minutes is achievable. Before long, 20 or even 30 minutes may

become normal. Usually at least three or four workouts per week are required to see improvement.

Continuous training can also help establish what is called a "fitness base," a foundation of exercise that athletes can depend on for further training. A person who knows he or she can comfortably jog for 45 minutes will be able to use that amount of time as a window for speed intervals or more intensive workouts later on. When the body is conditioned to keep moving for certain durations, it can adapt to filling those periods with different, more strenuous activities.

METHODOLOGY

The purpose of the study was to find out the influence of slow continuous running on cardio respiratory endurance. To achieve this purpose of the study, thirty men students in the department of physical education and sports and sciences, Annamalai University were selected as subjects at random. Their age ranged between the 17 to 23years. The selected subjects were divided in two equal groups fifteen each namely slow continuous running group and control group. Group I underwent for five continuous running days per week for twelve weeks, whereas Group II acted as the control group who maintained their daily routine activities and no special training was given to them. The following variable namely cardio respiratory endurance was selected as criterion variable. The subjects of the groups was tested on cardio respiratory endurance by using cooper's 12 minutes run/walk test at prior and immediately after the training period. The collected data were analyzed statistically through analysis of

covariance (ANCOVA) to find out the significant differences, if any between the groups. The .05 level of confidence was fixed to test the level of significance, which was considered as an appropriate.

CARDIO RESPIRATORY ENDURANCE

The analysis of covariance on cardio respiratory endurance of the pre and post test scores of slow continuous running group and control group have been analyzed and presented in Table I.

TABLE I
ANALYSIS OF COVARIANCE ON CARDIO RESPIRATORY ENDURANCE FOR SLOW CONTINUOUS RUNNING GROUP AND CONTROL GROUP

Test / Group		Slow continuous running Group	Control Group	Source of variance	Sum of Square	df	Mean Square	obtained 'F' Ratio
Pre Test	Mean	1377.10	1374.21	Between	3100.28	1	3100.28	0.010
	S.D	21.39	22.38	Within	8425165	28	300898.75	
Post test	Mean	1561.07	1378.33	Between	215425823	1	215425823	212.50*
	S.D	28.98	28.87	Within	28378202	28	1013507.21	
Adjusted Post test	Mean	1595.80	1380.17	Between	32189092.21	1	34189092.53	316.58*
				Within	2915894.83	27	107996.10	

* Significant at .05 level of confidence.(The table values required for significance at . 05 level of confidence for 1 and 28 and 1 and 27 are 4.20 and 4.21 respectively)

The table I showed that the pre test mean values on slow continuous running group and control group were 1377.10 and 1374.21 respectively. And the obtained 'F' ratio of 0.010 for pre test which was less than the required table value 4.20 with df 1 and 28 at . 05 level of confidence on cardio respiratory endurance. The post test mean values on cardio respiratory endurance for slow continuous running group and control group were 1561.07 and 1378.33 respectively. And the obtained 'F' ratio of 212.50 for post test which was greater than the required table value 4.20 with df 1 and 28 at .05 level of confidence on cardio respiratory endurance. The adjusted post test mean values on cardio respiratory endurance for slow continuous running group and control group were 1595.80 and 1380.17 respectively . The obtained 'F' ratio of 316.58 for adjusted post test which was greater than the required table value 4.21 with df 1 and 27 for significance at .05 level of confidence on cardio respiratory endurance.

Hence, the results of the study showed that there was a significance difference exist between experimental group and control group on cardio respiratory endurance.

CONCLUSIONS

1. The cardio respiratory endurance resulted in the following changes in the slow continuous running when compared with the control group.
2. The results of study showed that there was a significant difference exist between slow continuous running group and control group on cardio respiratory endurance. And also there was a significant improvement on cardio respiratory endurance due to slow continuous running.

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