



EFFECT OF SLOW CONTINUOUS RUNNING ON SELECTED ENDURANCE PARAMETERS AMONG COLLEGE MEN STUDENTS

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Abstract:

The purpose of the study was designed to examine the effect of slow continuous running on strength endurance and cardio respiratory endurance among college men students. For the purpose of the study, thirty college men students from Dr. Sivanthi Aditanar College of Physical Education, Tiruchendur, Tamilnadu, India were selected as subjects. They were divided into two equal groups. Each group consisted of fifteen subjects. Group I underwent slow continuous running for three days per week for twelve weeks. Group II acted as control that did not undergo any special training programme apart from their regular physical education programme. The following variables, namely strength endurance and cardio respiratory endurance were selected as criterion variables. All the subjects of the two groups were tested on selected dependent variables, namely strength endurance and cardio respiratory endurance by using bend knee sit-ups and cooper's 12 min run / walk test at prior to and immediately after the training programme. The analysis of covariance was used to analyze the significant difference if any among the groups. The .05 level of confidence was fixed as the level of significance to test the 'F' ratio obtained by the analysis of covariance, which was considered appropriate. The results of the study showed that there was a significant difference between slow continuous running group and control group on strength endurance and cardio respiratory endurance. And also, it was found that there was a significant improvement on selected criterion variables such as strength endurance and cardio respiratory endurance due to slow continuous running.

Key Words: Slow Continuous Running, Strength Endurance, Cardio Respiratory Endurance, College Men Students

Introduction:

Slow continuous running, often referred to as "steady-state" or "easy" running, involves maintaining a consistent, comfortable pace for an extended period without significant variations in speed. This type of running is characterized by a moderate intensity that allows for sustained effort and conversation. Slow continuous running should be at a pace where you can easily maintain a conversation. It is not overly challenging, allowing you to sustain the effort for an extended duration. Slow continuous running is excellent for building and improving your aerobic endurance. It helps develop the cardiovascular system, enhances the efficiency of oxygen utilization, and strengthens the muscles involved in running. This type of running is often used on recovery days or as part of a tapering period. It promotes active recovery by providing a lower-intensity workout that still keeps the body moving. Slow continuous running sessions are typically longer in duration compared to more intense workouts. This extended time at a moderate effort helps build stamina and endurance. Slow continuous running is often a staple in training plans, especially for long-distance runners. It can be included in weekly schedules to complement more intense workouts. In a progression run, you start at an easy pace and gradually increase your speed throughout the run. This helps simulate fatigue toward the end of a race and builds mental toughness. Running the second half of a workout or race faster than the first half is known as negative splitting. This can be applied to slow continuous runs to practice pacing strategies. By running at a steady, comfortable pace, you build the endurance needed for longer distances. Extended periods of running at a consistent pace help your body adapt to fatigue, improving your ability to maintain speed over time. Long, steady runs provide an opportunity to develop mental resilience and focus, especially during extended periods of continuous effort. Slow continuous running can be used as an active recovery tool, promoting blood flow to aid in recovery without causing additional stress to the body. It forms the foundation for more intense workouts by establishing a solid aerobic base, which is crucial for overall running performance.

Methodology:

The purpose of the study was designed to examine the effect of slow continuous running on strength endurance and cardio respiratory endurance among college men students. For the purpose of the study, thirty college men students from Dr. Sivanthi Aditanar College of Physical Education, Tiruchendur, Tamilnadu, India were selected as subjects. They were divided into two equal groups. Each group consisted of fifteen subjects. Group I underwent slow continuous running for three days per week for twelve weeks. Group II acted as

control who did not undergo any special training programme apart from their regular physical education programme. The following variables, namely strength endurance and cardio respiratory endurance were selected as criterion variables. All the subjects of two groups were tested on selected dependent variables namely strength endurance and cardio respiratory endurance by using bend knee sit-ups and cooper's 12 min run / walk test at prior to and immediately after the training programme. The analysis of covariance was used to analyze the significant difference if any among the groups. The .05 level of confidence was fixed as the level of significance to test the 'F' ratio obtained by the analysis of covariance, which was considered appropriate.

Analysis of the Data:

Strength Endurance:

The analysis of covariance on strength 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 1: Analysis of Covariance of the Data on Strength Endurance of Pre and Post Tests Scores of Slow Continuous Running and Control Groups

Test	Slow Continuous Running Group	Control Group	Source of Variance	Sum of Squares	df	Mean Squares	Obtained 'F' Ratio
Pre Test							
Mean	36.80	36.73	Between	0.03	1	0.03	0.01
S.D.	1.68	2.47	Within	77.33	28	2.76	
Post Test							
Mean	44.67	36.93	Between	448.53	1	448.53	22.16*
S.D.	1.53	1.34	Within	566.80	28	20.24	
Adjusted Post Test							
Mean	44.64	36.96	Between	441.30	1	441.30	222.42*
			Within	53.57	27	1.98	

* Significant at .05 level of confidence.

(The table values required for significance at .05 level of confidence for 2 and 28 and 2 and 27 are 3.34 and 3.35 respectively). The table 1 shows that the adjusted post-test means of slow continuous running group and control group are 44.64 and 36.96 respectively. The obtained "F" ratio of 222.42 for adjusted post-test means is more than the table value of 3.35 for df 1 and 27 required for significance at .05 level of confidence on strength endurance. The results of the study indicated that there was a significant difference between the adjusted post-test means of slow continuous running group and control group on strength endurance.

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 2.

Table 2: Analysis of Covariance of the Data on Cardio Respiratory Endurance of Pre and Post Tests Scores of Slow Continuous Running and Control Groups

Test	Slow Continuous Running Group	Control Group	Source of Variance	Sum of Squares	df	Mean Squares	Obtained 'F' Ratio
Pre Test							
Mean	1388.67	1377.33	Between	963.33	1	963.33	0.47
S.D.	46.02	35.57	Within	57466.67	28	2052.38	
Post Test							
Mean	1455.33	1388.67	Between	33333.33	1	33333.33	11.57*
S.D.	41.39	43.49	Within	80680.00	28	2881.43	
Adjusted Post Test							
Mean	1450.62	1393.38	Between	24175.56	1	24175.56	85.16*
			Within	7664.87	27	283.88	

* Significant at .05 level of confidence.

(The table values required for significance at .05 level of confidence for 2 and 28 and 2 and 27 are 3.34 and 3.35 respectively). The table 2 shows that the adjusted post-test means of slow continuous running group and control group are 1450.62 and 1393.38 respectively. The obtained "F" ratio of 85.16 for adjusted post-test means is more than the table value of 3.35 for df 1 and 27 required for significance at .05 level of confidence on cardio respiratory endurance. The results of the study indicated that there was a significant difference between the adjusted post-test means of slow continuous running group and control group on cardio respiratory endurance.

Conclusion:

- There was a significant difference between slow continuous running group and control group on strength endurance and cardio respiratory endurance.

- And also it was found that there was a significant improvement on selected criterion variables such as strength endurance and cardio respiratory endurance due to slow continuous running.

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