

Effect of Slow Continuous Run Speed Continuous Run and Extensive Interval Run Training on 1500 Meters Performance of Post Adolescence Boys

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Abstract

The purpose of the study was to find out the effect of slow continuous run speed continuous run and extensive interval run training on 1500 meters performance of post adolescence boys. For this study 80(Eighty) healthy untrained subjects were selected randomly and divided into four groups. Group 'A' underwent slow continuous running (SLCRG) Group 'B' underwent the speed of continuous running (SPCRG), Group 'C' underwent extensive interval training (EIRTG). Group 'D' acted the control group (CG) did not undergoes any special training program in addition to their regular program. Training was provided for three days a week in the morning and evening only. The training was for a period of 12 weeks. The 1500 meters performance was measured in a standard track. Prior to and after the end of practice period all the subjects were tested on 1500 meters performance. The data for training periods (pre-test) were obtained before and after the training period of 12 weeks (post-test). It was concluded that the three experimental training group shows significant improvement on 1500 mts performance when compared with the control group.

KEYWORDS: Slow continuous run, Speed continuous run, Extensive interval run

Introduction

Endurance can generally be defined as the ability of the body to resist fatigue. However, in athletic events requiring great endurance, the key role is restricted ability of the circulatory system to supply the oxygen to working muscles and to maintain the muscles cells free from the squander products². Muscular endurance is the capability of muscles or muscles group to carry out repeated contraction beside a light (sub maximal) load for a comprehensive phase of time. Strength endurance is the capability of all parts of an organ or organism to maintain the strength expressed throughout fatigue or energy metabolism. It is characterized by a comparatively high application of strength, jointly with psychological and physical perservance³. Cardio-respiratory endurance extends to a period of time the process of one's closeness to the capacity of the aerobic capacity. It is based on the time to complete the step to increase the endurance of the virtual work load and improve the ability to work. Endurance associated with cardio respiratory system is characterized by a physiological fitness and is related to the phenomenon of wind. In this instance exercise is carried on for sufficient duration and intensity to stress the incubatory and respiratory systems. Such endurance enables the individual to sustain moderate contraction of skeletal muscles over and above the circulatory system can be made over efficient through training.

Continuous training, also known as continuous exercise, is any type of physical training that involves activity without rest intervals. Continuous training can be

performed at low, moderate, or high exercise intensities,⁴ and is often contrasted with interval training, often called high-intensity interval training. Exercise modes noted as suitable for continuous training include indoor and outdoor cycling, jogging, running, walking, rowing, stair climbing, simulated climbing, Nordic skiing, elliptical training, aerobic riding, aerobic dancing, bench step aerobics, hiking, in-line skating, rope skipping, swimming, and water aerobics.⁵ Interval training is a type of training that involves a series of low- to high-intensity workouts interspersed with rest or relief periods.¹³ The high-intensity periods are typically at or close to anaerobic exercise, while the recovery periods involve activity of lower intensity.⁴ Varying the intensity of effort exercises the heart muscles, providing a cardiovascular workout, improving aerobic capacity and permitting the person to exercise for longer and/or at more intense levels Interval training can refer to the organization of any cardiovascular workout⁶. The 1500 meters or 1,500-metre run is the foremost middle distance track event in athletics. The distance has been contested at the Summer Olympics since 1896 and the World Championships in Athletics since 1983. It is equivalent to 1.5 kilometers or approximately $1\frac{5}{16}$ miles¹. The demands of the race are similar to that of the 800 meters, but with a slightly higher emphasis on aerobic endurance and a slightly lower sprint speed requirement. The 1500 meter race is predominantly aerobic, but anaerobic conditioning is also required.⁸ In 1500 meters events, particularly at the championship level, turn into slow, strategic races, with the pace quickening and competitors jockeying for position in the final lap to settle the race in a final sprint⁹. Such is the difficulty of maintaining the pace throughout the duration of the event. Most records are set in planned races led by pacemakers who sacrifice their opportunity to win by leading the early laps at a fast pace before dropping out.

Statement of the problem

The purpose of the study was to find out the effect of slow continuous run, speed continuous run and extensive interval training on 1500 meters performance on post adolescence boys.

De-limitations

The study was delimited to the following aspects are

1. The study was delimited to eighty state untrained school boys from Puducherry.
2. The age of the subjects ranged between 16 to 18 years.
3. The following performance variable was delimited
1500 meters performance
4. Training period was fixed for twelve weeks.

Limitations

The following were limitations of the study:

1. The subject's previous training, health habits, rest period, life-style, day-to-day activities and other factors were not considered.
2. The uncontrollable factors such as climatic conditions, atmospheric temperature and humidity were not taken into consideration during the testing period.

3. The heredity and family factors could not be controlled.
4. The food habits and the general mood of the subjects were not considered.
5. The internal and external factors which may discourage or motivate the subject while performing the physical fitness test could not be controlled.

Hypothesis

It was hypothesized that there would be significant difference among the slow continuous run speed continuous run and extensive interval run training on 1500 meters performance of 16-18 years boys

Methodology

The purpose of the study was to find out the effect of slow continuous run, speed continuous run and extensive interval run training on 1500 meters performance of post adolescence boys. For this study 80(Eighty) healthy untrained subjects were selected randomly and divided into four groups. Group 'A' underwent slow continuous running (SLCRG) Group 'B' for the renovation speed of continuous running (SPCRG), Group 'C' underwent extensive interval of the run (EIRTG). Group 'D' acted the control group (CG) did not practice undergo any special training program in addition to their regular program. Training was provided for three days in a week during their regular practice session in the morning and evening only for a period of 12 weeks. The 1500 meters performance was measured in standard track. Prior to and after the end of training period all the subjects were tested on 1500 meters performance.

Analysis of data and interpretation

Analysis of co-variance was used to determine the differences, if any, among the adjusted post test means on each selected criterion variables separately. Whenever the 'F' ratio for adjusted post-test was found to be significant, the Scheff's test was applied as post-hoc test to determine the paired mean differences. The level of significance was fixed at 0.05 level of confidence to test the 'F' ratio obtained by analysis of covariance

Table I- Analysis of Covariance for Pre Test and Post Test Data on 1500 meters performance of Slow Continuous running group, Fast Continuous Running group, Extensive Interval training group and control group

	SLCRG	SPCRG	EIRTG	CG	S.V	Sum of square	df	Mean Square	'F' ratio
Pre test mean	4.82	4.89	4.81	4.86	B	0.079	3	0.026	0.095
SD	0.55	0.55	0.48	0.50	W	21.04	76	0.277	
Post- test Mean	4.62	4.69	4.54	5.09	B	3.61	3	1.20	4.90*
SD	0.48	0.46	0.41	0.60	W	18.65	76	0.24	

Adjusted post-test Mean	4.65	4.66	4.56	4.08	B	3.27	3	1.09	25.15*
					W	3.25	75	0.04	

Significant at 0.05 level of confidence

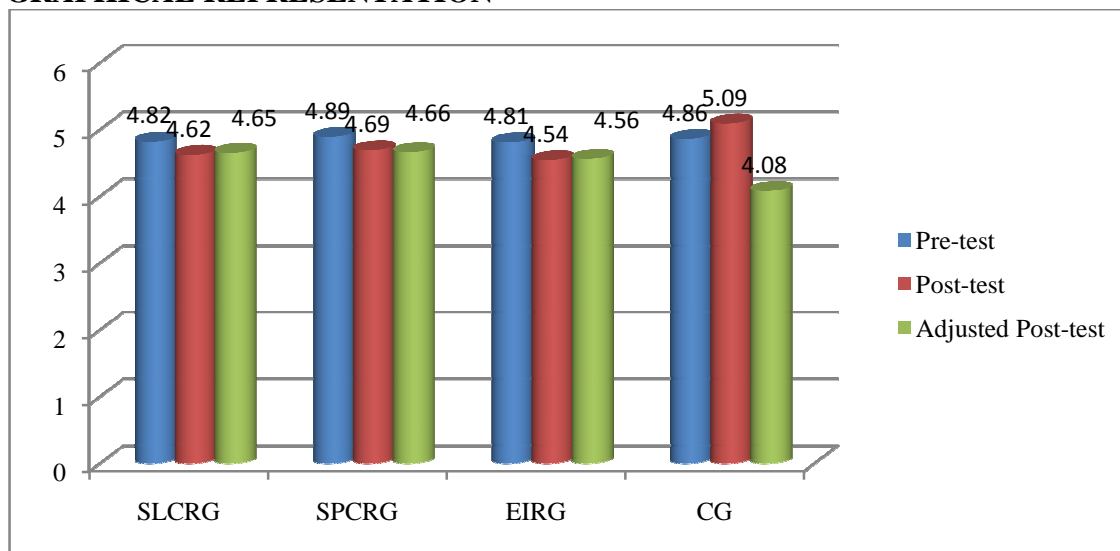
The table I Shows that the pre test mean values on 1500 meters run performance for slow continuous running group (SLCRG), speed continuous running group (SPCRG), extensive interval training group (EIRTG) and control groups (CG) were 4.82, 4.89, 4.81 and 4.86 respectively. The obtained ‘F’ value of 0.095 for pre test scores on 1500 meters run performance, which was lesser than the table value of 2.72 for significance with df 3 and 76 at 0.05 level of confidence. The post test mean values on 1500 meters run performance for slow continuous running group (SLCRG), fast continuous running group (SPCRG), extensive interval run training group (EIRTG) and control groups (CG) were 4.62, 4.69 and 4.54 respectively. The obtained ‘F’ value of 4.90 for post test scores on 1500 meters run performance, which was greater than the table value of 2.72 for significance with df 3 and 76 at 0.05 level of confidence. The adjusted post test mean values on 1500 meters run performance for slow continuous running group (SLCRG), speed continuous running group (SPCRG), extensive interval run training group (EIRTG) and control groups (CG) were 4.65, 4.66, 4.56 and 4.08 respectively. The obtained ‘F’ value of 25.15 for adjusted post test scores on 1500 meters run performance, which was higher than the table value of 2.72 for significance with df 3 and 75 at 0.05 level of confidence. The result of the study showed that there was a significant difference among slow continuous running group (SLCRG), speed continuous running group (SPCRG), extensive interval run training group (EIRTG) and control group (CG) on 1500 meters run performance.

Table II- Scheffe’s post hoc test for 1500 meters performance

SLCRG	SPCRG	EIRTG	CG	MD	CI
4.65	4.66			0.01	0.20
4.65		4.56		0.09	
4.65			4.08	0.57*	
	4.66	4.56		0.10	
	4.66		4.08	0.58*	
		4.56	4.08	0.48*	

The table II Shows that the adjusted post test means differences of slow continuous running (SLCRG), Speed continuous running group (SPCRG), extensive interval run training group (EIRTG) and control group (CG) were 0.57, 0.58 and 0.48 respectively. They were greater than the confidence interval value 0.20 at 0.05 levels, which indicate that there was a significant differences of all the three training group with the control group , the results also indicate that there is no significant differences in between all the training groups.

GRAPHICAL REPRESENTATION



RESULT AND CONCLUSION

The result of the study revealed that the slow continuous run, speed continuous run and extensive interval run training were significantly improved 1500 meters run performance when compared with control group. Further it has also indicated that there were no significant differences among the three groups on 1500 meters run performance. Vere Skubic and Hodgkins¹⁰ found significant improvement on 1500 meter running performance due to the effect of fartlek training at different altitudes of college men. Nilesh and Bansode⁷ found that fartlek training programme is effective for improving the performance of 1500 meters race. Present study also revealed that the three continuous types of endurance training improve the performance of 1500 meters race.

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