

**Effect Of Fartlek Training On Muscular Endurance Among
Cross Country Runners****Dr.A.PALANISAMY**

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ABSTRACT

The purpose of the study was to find out the effect of fartlek training on muscular endurance among cross country runners. To achieve the purpose of the present study, thirty men cross country runners from Department of Physical Education, Bharathidasan University, Tiruchirappalli, Tamilnadu, India were selected as subjects at random and their ages ranged from 18 to 25 years. The subjects were divided into two equal groups of fifteen each. Group I acted as Experimental Group (Fartlek training) and Group II acted as Control Group. The requirement of the experiment procedures, testing as well as exercise schedule was explained to the subjects so as to get full co-operation of the effort required on their part and prior to the administration of the study. The duration of experimental period was 12 weeks. After the experimental treatment, all the thirty subjects were tested. The pre test and post test scores were subjected to statistical analysis using Analysis of Covariance (ANCOVA) to find out the significance among the mean differences. In all cases 0.05 level of significance was fixed to test hypotheses. The experimental group had achieved significant improvement on muscular endurance than the control group.

KEYWORDS: Fartlek Training, Muscular endurance, Cross country runners.

INTRODUCTION

In the beginning a typical Swedish Fartlek session would comprise a total of 12 kilometres running with up to 5,000 metres of this running being at faster than race pace. And this Fartlek training would be done regularly and often, from three to five times a week. Holmér's cross country runners blossomed under the Fartlek regime and produced world records in all distances from two miles to 10,000 metres. The most successful of these cross country runners was Gunder Hägg who in the summer of 1942 established ten world records over an 82-day period in seven different events, from 1500 metres to 5,000 metres. The running world took notice and word of the new 'Fartlek Training' spread. Fartlek, developed in the 1930's, comes from the Swedish for 'Muscular endurance Play' and combines continuous and interval training. Fartlek allows the athlete to run at varying intensity levels over distances of their choice. This type of training stresses both the aerobic and anaerobic energy pathways. Fartlek running involves varying your pace throughout your run, alternating between fast segments and slow jogs. Unlike traditional interval training that involves specific timed or measured segments, fartleks are more unstructured. Work-rest intervals can be based on how the body feels. With fartlek training, you can experiment with pace and endurance, and to experience changes of pace. Many runners, especially beginners, enjoy fartlek training because it involves muscular endurance work. But it is more flexible than and not as demanding as traditional interval training. Another benefit of fartlek training is that it doesn't have to be done on a track and can

be done on all types of terrains roads, trails, or even hills. To do a fartlek workout, try introducing some short periods of slightly higher pace into your normal runs. Maintain the faster pace for a short distance or time intervals, such as 200m or 30 seconds. The intervals can vary throughout the workout, and you can even use landmarks such as streetlights or telephone poles to mark your segments (Schatzle & Joe, 2002).

METHODOLOGY

The purpose of the study was to find out the effect of fartlek training on muscular endurance among cross country runners. To achieve the purpose of the present study, thirty men cross country runners from Department of Physical Education, Bharathidasan University, Tiruchirappalli, Tamilnadu, India were selected as subjects at random and their ages ranged from 18 to 25 years. The subjects were divided into two equal groups of fifteen each. Group I acted as Experimental Group (Fartlek training) and Group II acted as Control Group. The requirement of the experiment procedures, testing as well as exercise schedule was explained to the subjects so as to get full co-operation of the effort required on their part and prior to the administration of the study. The duration of experimental period was 12 weeks. After the experimental treatment, all the thirty subjects were tested. The pre test and post test scores were subjected to statistical analysis using Analysis of Covariance (ANCOVA) to find out the significance among the mean differences. In all cases 0.05 level of significance was fixed to test hypotheses.

RESULTS

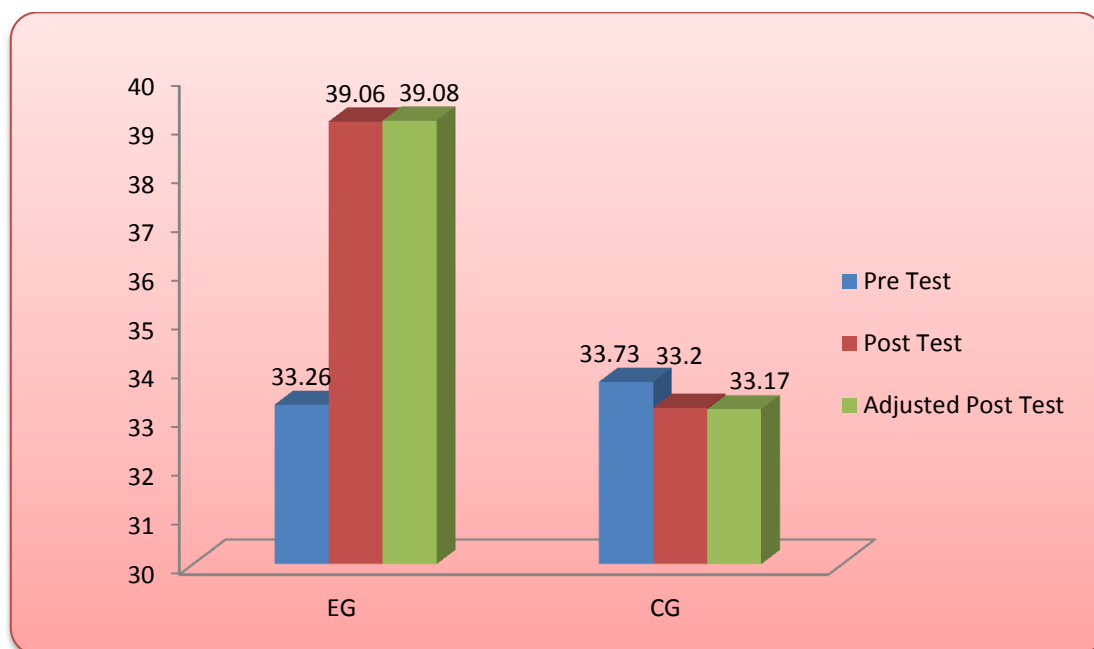
TABLE – I
COMPUTATION OF MEAN AND ANALYSIS OF COVARIANCE OF MUSCULAR
ENDURANCE OF EXPERIMENTAL
AND CONTROL GROUPS

	Experimental Group	Control Group	Source of Variance	Sum of Squares	df	Mean Square	F
Pre Test Mean	33.26	33.73	BG	1.63	1	1.63	0.54
			WG	83.86	28	2.99	
Post Test Mean	39.06	33.20	BG	258.13	1	258.13	126.06*
			WG	57.33	28	2.04	
Adjusted Post Mean	39.08	33.17	BG	256.83	1	256.83	122.39*
			WG	56.65	27	2.09	

* Significant at 0.05 level, Table value for df 1 and 28 was 4.20, 1 and 27 was 4.21

The above table indicates the adjusted mean value of muscular endurance of experimental and control groups were 1429.94 and 1208.52 respectively. The obtained F-ratio of 94.31 for adjusted mean was greater than the table value 4.21 for the degrees of freedom 1 and 27 required for significance at 0.05 level of confidence. The result of the study indicates that there was a significant difference among experimental and control groups on muscular endurance. The above table also indicates that both pre and post test means of experimental and control groups differ significantly. The pre, post and adjusted post mean values of muscular endurance of both experimental and control groups are graphically represented in the figure-I.

FIGURE – I
SHOWS THE MEAN VALUES ON MUSCULAR ENDURANCE OF EXPERIMENTAL GROUP AND CONTROL GROUPS



CONCLUSION

From the results obtained, the following conclusions were drawn:

1. It was observed that the twelve weeks of experimental group have significantly improved the muscular endurance of cross country runners.
2. The experimental group had achieved significant improvement on muscular endurance than the control group.

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