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INFLUENCE OF FARTLEK TRAINING ON STRENGTH ENDURANCE AND CARDIO RESPIRATORY ENDURANCE AMONG COLLEGE MEN STUDENTS

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Abstract:

The purpose of the study was designed to examine the effect of Fartlek training on strength endurance and cardio respiratory endurance of college men students. For the purpose of the study, thirty men students from the University College of Arts, Tumkur University, Tumkur, Karnataka, India were selected as subjects. They were divided into two equal groups. Each group consisted of the fifteen subjects. Group I underwent Fartlek training 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 by using bend knee sit ups and cooper's 12 minutes run / walk test respectively 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 Fartlek training group and control group on strength endurance and cardio respiratory endurance. And also it was found that there was a significant improvement on strength endurance and cardio respiratory endurance due to twelve weeks of Fartlek training.

Key Words: Fartlek Training, Strength Endurance, Cardio Respiratory Endurance, College Men Students

Introduction:

Fartlek training, derived from the Swedish word meaning "speed play," is a versatile and dynamic form of training that combines both aerobic and anaerobic exercise. It's a popular training method among athletes across various sports due to its flexibility and effectiveness in improving both speed and endurance. Unlike structured interval training, where you have predetermined periods of work and rest, fartlek training is more unstructured and spontaneous. It involves alternating between periods of high-intensity effort and low-intensity recovery within the same workout session. This randomness challenges the body in different ways, enhancing cardiovascular fitness, speed, and stamina.

Fartlek training can be adapted to suit individual fitness levels, making it accessible for beginners and experienced athletes alike. It can be done almost anywhere, whether on roads, trails, or tracks, and doesn't require any special equipment. This freedom allows for creativity in designing workouts tailored to specific goals and preferences. Overall, fartlek training offers a fun and effective way to build endurance, speed, and mental toughness, making it a valuable addition to any fitness regimen.

Methodology:

The purpose of the study was designed to examine the effect of Fartlek training on strength endurance and cardio respiratory endurance of college men students. For the purpose of the study, thirty men students from the University College of Arts, Tumkur University, Tumkur, Karnataka, India were selected as subjects. They were divided into two equal groups. Each group consisted of the fifteen subjects. Group I underwent Fartlek training 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 by using bend knee sit ups and cooper's 12 minutes run / walk test respectively 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 Fartlek training group and control group have been analyzed and presented in table 1.

Table 1: Analysis of Covariance of the Data on Strength Endurance of Pre and Post Tests Scores of Fartlek Training and Control Groups

Test	Fartlek Training Group	Control Group	Source of Variance	Sum of Squares	df	Mean Squares	Obtained 'F' Ratio
Pre Test							
Mean	40.87	40.33	Between	2.13	1	2.13	0.60
S.D.	2.00	1.73	Within	99.07	28	3.54	
Post Test							
Mean	46.27	40.60	Between	240.83	1	240.83	20.47*
S.D.	1.62	1.70	Within	329.37	28	11.76	
Adjusted Post Test							
Mean	46.03	40.83	Between	198.59	1	198.59	414.12*
			Within	12.95	27	0.48	

* 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 Fartlek training group and control group are 46.03 and 40.83 respectively on strength endurance. The obtained "F" ratio of 414.12 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 Fartlek training 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 Fartlek training 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 Fartlek Training and Control Groups

Test	Fartlek Training Group	Control Group	Source of Variance	Sum of Squares	df	Mean Squares	Obtained 'F' Ratio
Pre Test							
Mean	1403.33	1386.67	Between	2083.33	1	2083.33	0.82
S.D.	50.42	58.31	Within	71266.67	28	2545.24	
Post Test							
Mean	1480.00	1392.67	Between	57203.33	1	57203.33	10.60*
S.D.	47.00	53.47	Within	151096.67	28	5396.31	
Adjusted Post Test							
Mean	1471.14	1401.52	Between	35321.70	1	35321.70	71.10*
			Within	13413.38	27	496.79	

* 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 Fartlek training group and control group are 1471.14 and 1401.52 respectively on cardio respiratory endurance. The obtained "F" ratio of 71.10 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 Fartlek training group and control group on cardio respiratory endurance.

Conclusions:

- There was a significant difference between Fartlek training 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 Fartlek training.

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