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EFFECT OF FARTLEK TRAINING ON SELECTED STRENGTH AND ENDURANCE PARAMETERS AMONG COLLEGE MEN STUDENTS

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Abstract:

The purpose of the study was designed to examine the effect of fartlek training on leg strength and strength endurance among college men students. For the purpose of the study, thirty college men students from Yogi Vemana University, Kadapa, Andhra Pradesh, 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 leg strength and strength endurance were selected as criterion variables. All the subjects of two groups were tested on selected dependent variables namely leg strength and strength endurance by using leg lift with dynamometer and bend knee sit-ups 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 as an appropriate. The results of the study showed that there was a significant difference between fartlek training group and control group on leg strength and strength endurance. And also it was found that there was a significant improvement on selected criterion variables such as leg strength and strength endurance due to fartlek training.

Introduction:

Fartlek training is a versatile and informal method of endurance training that blends continuous and interval training. The term "fartlek" is Swedish for "speed play," and this training approach involves varying your speed and intensity throughout a workout, incorporating both fast and slow intervals. Unlike structured interval training, fartlek is unstructured and allows for spontaneous changes in pace, making it a flexible and enjoyable way to improve cardiovascular fitness, speed, and endurance.

Developed in the 1930s by Swedish coach Gösta Holmér, fartlek training is designed to mimic the unpredictable nature of real-life physical activities. This method is particularly popular among runners, but it can be adapted to various aerobic exercises such as cycling, swimming, and team sports. A typical fartlek session might involve alternating between periods of jogging, sprinting, and walking, responding to factors like terrain, landmarks, or even personal feelings of fatigue. This variability challenges different energy systems within the body and helps improve overall fitness, stamina, and the ability to sustain effort over varying intensities.

Fartlek training provides a break from the monotony of traditional training routines and offers a more enjoyable and mentally stimulating workout. Athletes and fitness enthusiasts often appreciate the flexibility and creativity that fartlek training allows, as it can be easily adapted to individual fitness levels and goals. Incorporating fartlek sessions into a training program can contribute to enhanced aerobic capacity, increased speed, and improved overall performance.

Methodology:

The purpose of the study was designed to examine the effect of fartlek training on leg strength and strength endurance among college men students. For the purpose of the study, thirty college men students from Yogi Vemana University, Kadapa, Andhra Pradesh, 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 leg strength and strength endurance were selected as criterion variables. All the subjects of two groups were tested on selected dependent variables namely leg strength and strength endurance by using leg lift with dynamometer and bend knee sit-ups 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 as an appropriate.

Analysis of the Data:

Leg Strength:

The analysis of covariance on leg strength 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 Leg Strength 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	92.53	92.40	Between	0.13	1	0.13	0.19
S.D.	0.62	0.98	Within	19.33	28	0.69	
Post Test							
Mean	94.80	92.73	Between	32.03	1	32.03	15.64*
S.D.	0.95	0.85	Within	57.37	28	2.05	
Adjusted Post Test							
Mean	94.75	92.78	Between	28.87	1	28.87	52.30*
			Within	14.90	27	0.55	

* 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 94.75 and 92.78 respectively. The obtained "F" ratio of 52.30 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 leg strength. 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 leg strength.

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 2.

Table 2: 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	41.27	40.33	Between	6.53	1	6.53	1.57
S.D.	1.98	1.73	Within	116.27	28	4.15	
Post Test							
Mean	46.07	40.60	Between	224.13	1	224.13	19.09*
S.D.	1.96	1.99	Within	328.67	28	11.74	
Adjusted Post Test							
Mean	45.69	40.97	Between	158.35	1	158.35	139.86*
			Within	30.57	27	1.13	

* 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 45.69 and 40.97 respectively. The obtained "F" ratio of 139.86 for adjusted post-test means is more than the table value of 3.35 for df 1 and 27 required for significance at 0.05 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.

Conclusions:

- There was a significant difference between fartlek training group and control group on leg strength and strength endurance.
- And also it was found that there was a significant improvement on selected criterion variables such as leg strength and strength endurance due to fartlek training.

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