



IMPACT OF FARTLEK AND COMPLEX TRAINING ON EXPLOSIVE POWER AMONG PHYSICAL EDUCATION STUDENTS

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Abstract:

The purpose of the study was to find out the effect of fartlek and complex training packages on explosive power among physical education students. To achieve the purpose of the present study, forty five physical education students from AVVM Sri Pushpam College, Poondi were selected as subjects at random and their ages ranged from 18 to 21 years. The subjects were divided into three equal groups at random. The subjects were divided into three equal groups of fifteen subjects each. Group I acted as Experimental Group-I (Fartlek Training), Group I acted as Experimental Group II (Complex Training) and Group III acted as Control Group. 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, whenever the 'F' ratio for adjusted test was found to be significant, Scheffe's post hoc test was used. In all cases 0.05 level of significance was fixed to test hypotheses. It was observed that the twelve weeks of fartlek training and complex training have significantly improved the explosive power of physical education students.

Key Words: Fartlek Training, Complex Training, Explosive Power, Physical Education Students.

Introduction:

A crucial part of training plans for the 5k, 10k, half marathon, and marathon is the Farlek. Nonetheless, novice and intermediate runners can also use Fartlek to gradually increase their speed and stamina. Fartlek is easier to incorporate into a cardio workout schedule because, unlike interval training, which is typically done on tracks, it can be done on the road, in the hills, or in a park. These aerobic exercises are more uplifting for the runners because Fartlek does not impose rigid timetables or speed requirements. A power-building workout that incorporates plyometric and weighted exercises is referred to as complex training. These exercises received a lot of praise around ten years ago because studies showed they could greatly increase the power of fast-twitch muscle fibres and, consequently, dynamic sports performance. More recent studies, however, have brought to light several concerns regarding complex training in addition to some novel potential advantages.

Methodology:

The purpose of the study was to find out the effect of fartlek and complex training packages on explosive power among physical education students. To achieve the purpose of the present study, forty five physical education students from AVVM Sri Pushpam College, Poondi were selected as subjects at random and their ages ranged from 18 to 21 years. The subjects were divided into three equal groups at random. The subjects were divided into three equal groups of fifteen subjects each. Group I acted as Experimental Group-I (Fartlek Training), Group I acted as Experimental Group II (Complex Training) and Group III acted as Control Group. 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, whenever the 'F' ratio for adjusted test was found to be significant, Scheffe's post hoc test was used. In all cases 0.05 level of significance was fixed to test hypotheses.

Results:

Table 1: Computation of Analysis of Covariance of Mean Fartlek Training Complex Training and Control Groups on Explosive Power

	FTG	CTG	Control Group	Source of Variance	Sum of Squares	df	Means Squares	F-Ratio
Pre-Test Means	0.28	0.29	0.27	BG	0.0001	2	0.0001	0.16
				WG	0.004	42	0.0001	
Post-Test Means	0.38	0.37	0.28	BG	0.086	2	0.043	337.19*
				WG	0.005	42	0.0001	
Adjusted Post-Test Means	0.37	0.38	0.28	BG	0.087	2	0.043	343.96*
				WG	0.005	41	0.0001	

An examination of table 1 indicated that the pretest means of fartlek training, complex training and control groups were 0.28, 0.29 and 0.27 respectively. The obtained F-ratio for the pre-test was 0.16 and the table F-ratio was 3.21. Hence the pre-test mean F-ratio was insignificant at 0.05 level of confidence for the degree of freedom 2 and 42. This proved that there were no significant difference between the experimental and control groups indicating that the process of randomization of the groups was perfect while assigning the subjects to groups. The post-test means of the fartlek training, complex training and control groups were 0.38, 0.37 and

0.28 respectively. The obtained F-ratio for the post-test was 337.19 and the table F-ratio was 3.21. Hence the post-test mean F-ratio was significant at 0.05 level of confidence for the degree of freedom 2 and 42. This proved that the differences between the post test means of the subjects were significant. The adjusted post-test means of the fartlek training, complex training and control groups were 0.37, 0.38 and 0.28 respectively. The obtained F-ratio for the adjusted post-test means was 343.96 and the table F-ratio was 3.22. Hence the adjusted post-test mean F-ratio was significant at 0.05 level of confidence for the degree of freedom 2 and 41. This proved that there was a significant difference among the means due to the experimental trainings on explosive power.

Table 2: The Scheffe's Test for the Differences between the Adjusted Post Test Paired Means on Explosive Power

Adjusted Post-test means			Mean Difference	Required CI
FTG	CTG	Control Group		
0.37	0.38	---	0.01	0.09
0.37	---	0.28	0.11*	
---	0.38	0.28	0.10*	

* Significant at 0.05 level of confidence

The multiple comparisons showed in Table II proved that there existed significant differences between the adjusted means of fartlek training and control group (0.11) and complex training and control group (0.10) at 0.05 level of confidence with the confidence interval value of 0.009. The mean difference between fartlek training and complex training group (0.01) was not significant at 0.05 level of confidence with the confidence interval value of 0.09.

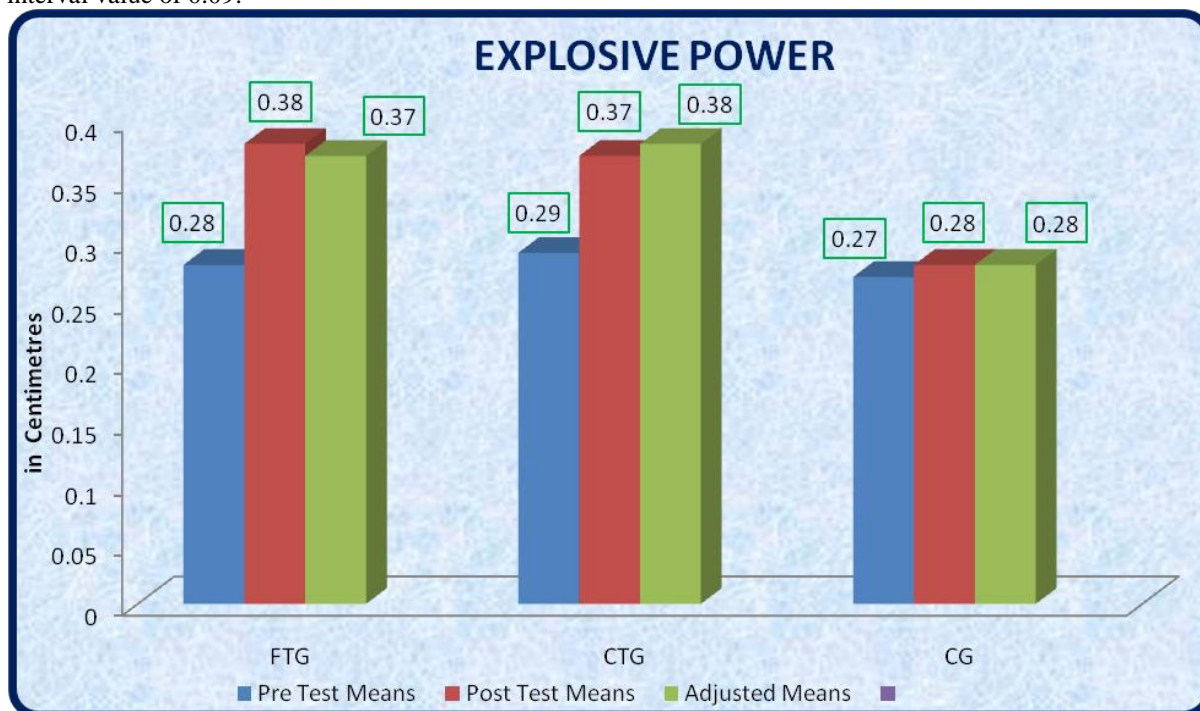


Figure 1: Pre Post and Adjusted Post Test Differences of the Fartlek Training Complex Training and Control Groups on Explosive Power

Conclusion:

It was observed that the twelve weeks of fartlek training and complex training have significantly improved the explosive power of physical education students.

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