also causes the athlete to gradually extend his or her recovery jogging time. Therefore, the major training effect is primarily aerobic endurance. The **Acceleration sprinting** develops almost exclusively speed and strength. It involves 50 to 110 yards of jogging. Followed by 50 to 110 yards of fast striding, and finally 50 to 110 yards of sprinting, following a recovery (via walking) distance of 50 to 110 yards, the procedure should be repeated. In this study an attempt is made to find out the effects of different sprint training on Anaerobic power.

METHODS AND TOOLS:

The selected subjects were divided into four equal groups of thirty subjects each, as experimental group 1, 2, 3 and 4. Group-1 underwent Acceleration Sprinting (AS), Group-2 underwent Repetition Sprinting (RS), Group-3 underwent Interval Sprinting (IS) for three alternate days per week for twelve weeks and Group-4 served as Control group that did not take part in any training. Anaerobic power was selected as criterion variable. All the subjects of four groups were tested on anaerobic power prior to and immediately after the training programme. Anaerobic power was tested by Margaria kalaman step test, the unit of the measurement in kg/mts/seconds. **TRAINING PROGRAMME:** The control group was not exposed to any training. The experimental groups 1, 2 and 4 were subjected to twelve week Acceleration Sprinting, Repetition Sprinting and Interval Sprinting of different sprint training respectively. Then training was given for three alternate days per week. Every training session lasted for 60 to 90 minutes. The training program was scheduled between 6.30 am and 8.00 am. The subjects underwent their respective programme. Intensity is the effort involved in performing a given task. In the Sprint training, intensity is controlled by the rate of exercise performed. Training load was fixed with the application of progressive method. The Intensity of different sprint training can be increased by the fluctuation of repetition and sets of exercise.

TABLE-I
ANALYSIS OF COVARIANCE ON ANAEROBIC POWER OF DIFFERENT GROUPS (Scores in watts)

Test	G – 1 AS	G – 2 RS	G – 3 IS	G – 4 CG	SV	SS	Df	MS	'F' Ratio
Pre Test									
Mean	974.67	981.33	974	970.67	Between	898.33	3	299.44	1.78
S.D.	15.98	12.46	9.10	13.35	Within	9400	56	167.86	
Post Test									
Mean	1006	1000	987.33	966	Between	14085	3	4695	21.89*
S.D.	17.65	14.64	14.38	11.21	Within	12013.33	56	214.52	
Adjusted Post Test									
Mean	1006.53	993.52	988.56	970.73	Between	9655.11	3	3218.37	108.67*
					Within	1628.82	55	29.61	

* Significant at .05 level of confidence

(The table values required for significance at .05 level of confidence for 3 and 56 and 3 and 55 are 2.78 and 2.77 respectively).

RESULTS ON ANAEROBIC POWER

Pre - Test: The AM± SD pretest anaerobic power scores of G1, G2, G3 and G4 were 974.67 ± 15.98, 981.33 ± 12.46, 974 ± 9.10 and 970.67 ± 13.35 respectively. The obtained pre test F value of 1.78 was lesser than the required table F value of 2.68. Hence the pre test mean value of Acceleration Sprinting, Repetition Sprinting, Interval Sprinting and Control group on anaerobic power before start of the respective treatments were found to be insignificant at 0.05 level of confidence for the degrees of freedom 3 and 56. Thus this analysis confirms that the random assignment of subjects into four groups were successful.

Post - Test: The AM± SD post- test anaerobic power scores of G1, G2, G3 and G4 are 1006 ± 17.65, 1000 ± 14.64, 987.33 ± 14.38 and 966 ± 11.21 respectively. The obtained post test F value of 21.89 was greater than the required table F value of 2.68. Hence the post- test mean value of anaerobic power show significant at 0.05 level of confidence for the degrees of freedom 3 and 56. Thus the results obtained proved that the interventions namely Acceleration Sprinting, Repetition Sprinting and Interval Sprinting on anaerobic power produced significantly different improvements among the four groups.

Adjusted Post - Test: The AM± SD post - test anaerobic power scores of G1, G2, G3 and G4 are 1006.53, 993.52, 988.56 and 970.73 respectively. The obtained adjusted post - test F value of 108.67 was greater than the required Table F value of 2.77. Hence the adjusted post - test mean value of anaerobic power show significant at 0.05 level of confidence for the degrees of freedom 3 and 55. Since the observed F value on adjusted post test mean among the groups such as on anaerobic power produced significantly different improvements among the four groups.

In order to find out which intervention programme used in the present study was the source for the significance of adjusted mean was tested by Scheffe's post hoc test. The results of the same are presented in the table-1 (a)

Table 1-A

SCHEFFE'S POST HOC TEST MEAN DIFFERENCES ON ANAEROBIC POWER AMONG FOUR GROUPS (Scores in watts)

G – 1 AS	G – 2 RS	G – 3 IS	G – 4 CG	Mean Differences	Confidence Interval Value
1006.53	993.52	-	-	13.01*	7.02
1006.53	-	988.56	-	17.97*	7.02
1006.53	-	-	970.73	35.80*	7.02
-	993.52	988.56	-	4.96	7.02
-	993.52	-	970.73	22.79*	7.02
-	-	988.56	970.73	17.83*	7.02

* Significant at .05 level of confidence.

Results of Post-Hoc Test on Anaerobic Power:

The comparison of group 2 and 3 show insignificant improvement on anaerobic power, because they obtained mean difference value on 4.96 was lesser than the confidential value of 7.02.

Remaining all comparisons show significant improvement on the anaerobic power parameter, because they obtained mean differences values of the comparisons were 13.01, 17.97,

35.80, 22.79 and 17.83 higher than the confidential interval value. Hence the above all comparisons were significant at 0.05 levels.

The results indicate that the acceleration sprinting dominated in the anaerobic power better than the repetition and interval sprint. Further the repetition sprint improved better than the interval sprint. The less improvement was observed in the interval sprinting.

DISCUSSION:

The results of the study clearly indicated that there were significant differences found among the selected groups and significant improvement was noticed on selected training programme.

CONCLUSION:

After the 12 weeks of training programme, Acceleration Sprinting influenced to a great extent on sprinting performance than the other two trainings and control group. The Repetition Sprinting training also produced enhanced development on the sprinting performance than the Interval Sprinting and control group. The Interval Sprinting produced slightest development on sprinting performance. No improvement was found on the control group.

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