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EFFECTS OF AEROBIC AND CIRCUIT TRAINING ON ANXIETY AMONG FOOTBALL PLAYERS

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Abstract:

The purpose of the study was to find out the effects of aerobic training and circuit on anxiety of men football players. To achieve this purpose of the study, sixty football players from Tamilnadu Physical Education and Sports University, Chennai were tested. They were divided into three equal groups of each twenty subjects. The group I aerobic training group, group II circuit training group conducted test for three days per week for twelve weeks and group III acted as control. The anxiety was assessed by Rainer Martens questionnaire in Numbers. All the subjects of three groups were tested on selected criterion variables at prior to and immediately after the training programme as pre and post test selection. Analysis of covariance (ANCOVA) was used to find out the significant difference if any, among the groups on each selected criterion variables separately. In all the cases .05 level of confidence was fixed to test the significance, which was considered as appropriate. During the training period, the subjects were selected at random and were into three groups. Group I aerobic training, group II circuit training programme, for three days per week for twelve weeks. The data was collected from three groups at prior to and after completion of the training period on selected criterion variables were statistically examined for significant difference if any, by applying analysis of covariance (ANCOVA). The Scheffe's post hoc test was also applied to know the significant difference between groups. The obtained 'F' ratio was also significant. In all cases .05 level of confidence was utilized to test the significance. It was concluded that aerobic exercises and circuit practice groups were significantly reduced anxiety of the college men.

Key Words: Aerobic, Circuit, Anxiety, Football

Introduction:

Circuit training is an efficient and challenging form of conditioning. It works well for developing strength, endurance (both aerobic and anaerobic), flexibility and coordination. Its versatility has made it popular with the general Public right through to elite athletes. For sports men and women, it can be used during the closed season and early pre-season to help develop a solid base of fitness and prepare the body for more stressful subsequent training.Circuit training is an effective organizational form of doing physical exercises for improving all physical fitness components. Aerobics is a progressive physical conditioning programme that stimulates cardio respiratory activity for a time period sufficiently long to produce beneficial changes in the body. To do any work we need energy and even while at rest some physiological functions have to be carried within our body and for that purpose some calories of energy will be burnt. As the intensity and duration of work increases the demand for the fuel in the working muscles also increases (Kalapotharakos et al. 2011).

Methodology:

The purpose of the study was to find out the effects of aerobic training and circuit on anxiety of men football players. To achieve this purpose of the study, sixty football players from Tamilnadu Physical Education and Sports University, Chennai were tested. They were divided into three equal groups of each twenty subjects. The group I aerobic training group, group II circuit training group conducted test for three days per week for twelve weeks and group III acted as control. The anxiety was assessed by Rainer Martens questionnaire in Numbers. All the subjects of three groups were tested on selected criterion variables at prior to and immediately after the training programme as pre and post test selection. Analysis of covariance (ANCOVA) was used to find out the significant difference if any, among the groups on each selected criterion variables separately. In all the cases .05 level of confidence was fixed to test the significance, which was considered as appropriate. During the training period, the subjects were selected at random and were into three groups. Group I aerobic training, group II circuit training programme, for three days per week for twelve weeks. The data was collected from three groups at prior to and after completion of the training period on selected criterion variables were statistically examined for significant difference if any, by applying analysis of covariance (ANCOVA). The Scheffe's post hoc test was also applied to know the significant difference between groups. The obtained 'F' ratio was also significant. In all cases .05 level of confidence was utilized to test the significance.

Results:

Table 1: Analysis of Covariance of the Data on Anxiety of Pre and Post Tests Scores of Aerobic Training Group, Circuit Training Group and Control Group

	Aerobics	Circuit	Control	Source of Variance	Sum of Squares	Df	Mean Squares	Obtained F
Pre Test Mean	20.85	22.30	21.50	Between	21.10	2	10.55	3.10
				Within	193.75	57	3.40	
Post Test Mean	17.58	18.45	21.05	Between	665.43	2	332.72	92.11*
				Within	205.90	57	3.61	
Adjusted Post Test Mean	17.56	18.43	21.05	Between	615.00	2	307.50	84.19*
				Within	204.53	56	3.65	

* Significant at .05 level of confidence.

(The table values required for significance at .05 level of confidence for 2 and 57 and 2 and 56 are 3.16 and 3.17 respectively).

Table 1 shows that the pre-test means on anxiety of aerobic training group, circuit training group and control group are 20.85, 22.30 and 21.50 respectively. The obtained 'F' ratio value 3.10 is less than the required table value 3.16 for 2 and 57 at .05 level of confidence on anxiety. The post-test means on anxiety of aerobic training group, circuit training group and control group are 17.58, 18.45 and 21.05 respectively. This obtained 'F' ratio value 92.11 is greater than the required table value 3.16 for 2 and 57 at .05 level of confidence on anxiety. The adjusted post-test means on anxiety of aerobic training group, circuit training group and control group are 17.56, 18.43 and 21.05 respectively. This obtained 'F' ratio value 84.19 for adjusted post-test is greater than the required table value 3.17 for 1 and 56 at .05 level of confidence on anxiety. The results of the study indicated that there was a significant difference between the adjusted post-test means of aerobic training group, circuit training group and control group on anxiety. Since, three groups were compared, whenever the obtained 'F' ratio for adjusted post test was found to be significant, the Scheffe's test to find out the paired mean differences and it was presented in Table II.

Table 2: The Scheffe's Test for the Differences between Paired Means on Anxiety

Means			Mean Difference	Required CI
Aerobics	Circuit	Control		
17.56	18.43	-	0.87	1.52
17.56	-	21.05	3.49*	1.52
-	18.43	21.05	2.62*	1.52

*Significant at 0.05 level of confidence

The table 2 shows that the mean difference values between aerobic training group and Circuit training group, aerobic training group and control group, Circuit training group and control group, 0.87, 3.49 and 2.62 respectively on flexibility. The CI value was 0.53 significance. The results of this study showed that there was a significant difference between aerobic training group and control group, Circuit training group and control group on anxiety.

Conclusion:

It was concluded that aerobic exercises and circuit practice groups were significantly reduced anxiety of the college men.

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