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Changes on cholesterol level in response to interval training among university players

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Abstract
The purpose of the study was to find out the changes on total cholesterol level in response to Interval training among university players. To achieve this purpose, 30 university players from different disciplines studying in various departments of annamalai university, Chidambaram, tamilnadu, were randomly selected as subjects. The age of the subjects were ranged from 18 to 25 years. The subjects were further classified at random into two equal groups of 15 subjects each. Group – I (experimental group) underwent interval training for three days per week for twelve weeks and group - II acted as control. The selected criterion variable namely total cholesterol was assessed before and after the training period. The collected data were statistically analyzed by using Analysis of Covariance (ANCOVA). From the results of the study it was found that there was a significant difference on total cholesterol among the interval training group when compared with the control group.

Keywords: Interval training and total cholesterol

Introduction
Sport has ever reflected developments in society. Sport, indeed has been a mirror of society Sport has a very prominent role in modern society. It is important to an individual, a group, a nation-indeed the whole world. Sport is an institutionalized competitive activity that involves vigorous physical exertion or the use of relatively complex physical skills by individuals whose participation is motivated by a combination of the intrinsic satisfaction associated with the activity itself and external reward earned through participation. Fitness is defined as having the necessary qualities; or a readiness or preparedness. These seem to imply that fitness is a preparation for something or that fitness has the necessary qualities for something. Physical fitness is to the human body what fine-tuning is to an engine. It enables us to perform up to our more specifically, it is. "The ability to perform daily tasks vigorously and alertly, with energy left over for enjoying leisure-time activities and meeting emergency demands. It is the ability to endure, to bear up, to withstand stress to carry on in circumstances where an unfit person could not continue. And is a major basis for good health and well-being". The word training means different things in different fields. In sports the word training is generally understood to be synonyms of doing exercise (Brace). Physical training refers to the processes used in order to develop the components of physical fitness as for example, to improve aerobic endurance, to stretch and relax muscles, to increase arm and shoulder strength to related exercise and programmes to specific requirements or individual sports (Rex, 1985).Training denotes the process of preparation for some task. This process invariably extends to a number of days and even months and years. Means and measure from several sports scheme disciplines significantly support the training of an advanced sports person. Sports training are a basic preparation of the sportsmen for better performance through physical exercise. It is based on scientific principles of aiming at education and performance, enhancement. Sports activities consists of motor movement and action and their success depends to a great extend on how correctly they are performed. Techniques of training and improvement of tactical efficiencies plays a vital role in training process. Interval training is a programme of repeated running with set of interval after each run. The period between runs must belong enough to allow the athlete some time recover from the previous run but long enough to afford him complete recovery (Tom Backer).

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Interval training is exercise followed by a property of prescribed relief interval (Edward.L).

Methodology

The purpose of the study was to find out the changes on total cholesterol level in response to Interval training among university players. To achieve this purpose, 30 university players from different disciplines studying in various departments of annamalai university, Chidambaram, tamilnadu, were randomly selected as subjects. The age of the subjects were ranged from 18 to 25 years. The subjects were further classified at random into two equal groups of 15 subjects each. Group – I (experimental group) underwent interval training for three days per week for twelve weeks and group - II acted as control. The selected criterion variable namely total cholesterol was assessed before and after the training period. The collected data were statistically analyzed by using Analysis of Covariance (ANCOVA). All the data were analyzed using SPSS statistical package. The level of confidence was fixed at .05 level of significance.

The Analysis of covariance on total cholesterol of the pre test and post test scores of experimental group and control group have been analyzed and presented in the below table.

Analysis of covariance on total cholesterol among interval and control groups

Variable name	Test	Experimental group	Control Group	SOV	Sum of square	df	Mean square	'F' Ratio
Total Cholesterol	Adjusted post- test mean	206.677	213.389	B:	335.695	1	335.695	7.456*
				W:	1215.652	27	45.024	

*Significant at .05 level of confidence (The table value required for significance at .05 level of confidence for df 1 and 27 was 4.21).

Results

The above table shows the adjusted post-test means of experimental and control group of total cholesterol are 206.677 and 213.389 respectively. The obtained 'F' ratio of 7.456 for adjusted post test is more than the table value of 4.21 for df 1 and 27 required for significance at 0.05 level.

Discussions on finding

The findings of the study shows that significant difference exists between experimental and control group on total cholesterol. Since the obtained 'F' ratio of 7.456 respectively for adjusted post test means were greater than the required table value 4.21 for significance at .05 level of confidence with df 1 and 27, the interval training have its influence on total cholesterol of university players.

Conclusions

Based on the results of the study, there was a significant difference on total cholesterol among experimental group and control group. It is concluded that there was a significant decrease on total cholesterol between interval training group and control group.

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