



EFFECT OF CONTINUOUS RUNNING TRAINING ON SELECTED PHYSIOLOGICAL VARIABLES OF BALL BADMINTON PLAYERS

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ABSTRACT

The purpose of the study was to find out the effect of continuous running training on selected physiological variables of ball badminton players. To achieve this purpose, 30 ball badminton players studying in various classes were randomly selected as subjects from the Department of Physical Education and Sports Sciences, Annamalai University. 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 continuous running training with different intensities for three days per week for twelve weeks and group - II acted as control. The selected criterion variables namely breathe holding time, resting pulse rate and vital capacity were assessed before and after the training period. The collected data were statistically analysed by using Analysis of Covariance (ANCOVA). From the results of the study it was found that there was a significant difference on breath holding time, resting pulse rate and vital capacity among the continuous running training group when compared with the control group.

Key words: Continuous running training, Physiological variables, breath holding time and resting pulse rate.

INTRODUCTION

Sports in the narrow sense can be defined as competitive activity, an activity factor in physical education, which has taken shape mainly in the field of physical culture of the society, as a special sphere of identifying and comparing between potentials in united form. Sports is a worldwide phenomenon today, it has occupied a prominent place both in the physical as well as in the moral culture of a society. Sports allows the sportsmen to below off tension and to forget the problems for a while and also to go out and have good time no matter whatever pressures they may be under in their life (Brace,1984). Physical fitness is one of the basic requirements of life and total fitness is essential (fitness) for healthy living (Hick, 1972). Fitness is determined by what we do twenty four hours a day to live, work, sit, walk, think, eat, sleep and fitness helps to enjoy the life (Davis, 2000). Physical fitness is not a static factor and it varies from individual to individual and in the same person from time to time depending on various factors (Lawrence, 2002). The concept of physical fitness in general athletic terms means the capability of the individual to meet the varied physical and physiological demands made by a sporting activity without reducing the person to an excessively fatigued state. Such a state would be one in which he/she can no longer perform the skill of the activity accurately and successfully (Boucher, 1993). Physical training is any

bodily activity that enhances or maintains physical fitness and overall health and wellness. It is performed for various reasons including strengthening muscles and the cardiovascular system, honing athletic skills, weight loss or maintenance, as well as for the purpose of enjoyment (Hardayal, 1991).

Modern day sports demands higher level of fitness and the modern sporting managers are on the lookout for training modalities to keep the players fit to perform and to avoid injuries.

METHODOLOGY

The purpose of the study was to find out the effect of continuous running training on selected physiological variables of ball badminton players. To achieve this purpose, 30 ball badminton players studying in various classes were randomly selected as subjects from the Department of Physical Education and Sports Sciences, Annamalai University. 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 continuous running training with different intensities for three days per week for twelve weeks and group - II acted as control. The selected criterion variables namely breath holding time, resting pulse rate and vital capacity were assessed before and after the training period. The

collected data were statistically analysed by using Analysis of Covariance (ANCOVA). The selected variables were measured by using standard testing procedures. The data collected from continuous running group and control groups before and after completion of the training period on selected variables were statistically examined by applying 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 breath holding time, resting pulse rate and vital capacity 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 Co Variance on Selected Variables among Continuous Running and Control Groups

Variable name	Test	Experimental group	Control Group	SO V	Sum of square	df	Mean square	'F' Ratio
Resting pulse rate	Adjusted post-test mean	64.40	69.55	B:	394.25	1	394.25	6.10*
				W:	1745.01	27	64.63	
Breath holding time	Adjusted post-test mean	58.50	52.00	B:	302.81	1	302.81	5.72*
				W:	1429.38	27	52.94	
Vital capacity	Adjusted post-test mean	3906	3168	B:	4077169	1	4077169	481.23*
				W:	228752.89	27	8472.32	

*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 resting pulse rate are 64.40 and 69.55 respectively. The obtained 'F' ratio of 6.10 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. The above table shows the adjusted post-test means of experimental and control group of breath holding time are 58.50 and 52.00 respectively. The obtained 'F' ratio of 5.72 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. The above table shows the adjusted post-test means of experimental and control group of vital capacity are 3906 and 3168 respectively. The obtained 'F' ratio of 481.23 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 breath holding time, resting pulse rate and vital capacity. Since the obtained 'F' ratio of 6.10, 5.72, and 481.23 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 result of the study shows that continuous running training have its influence on selected physiological variables of ball badminton players.

CONCLUSIONS

Based on the results of the study, it is concluded that there was a significant increase between experimental group and control group on breath

holding time and vital capacity. There was a significant decrease on resting pulse rate between experimental group and control group.

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