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EFFECT OF AEROBIC EXERCISES ON BLOOD CHOLESTEROL AMONG PHYSICAL EDUCATION STUDENTS

J.V.SASIREKA

Assistant Professor, Sri Sarada College of Physical Education for Women, Salem.

ABSTRACT

The purpose of the study was to determine the effect of aerobic exercises on blood cholesterol among physical education students. In order to achieve the purpose of this study the researcher has selected 30 physical education students from Sri Sarada College of Physical Education for Women, Salem, Tamilnadu India at random and their age ranged from 18 to 25 years. The subjects were divided into two equal groups. The study was formulated as a true random group design, consisting of a pre-test and post-test. The subjects (n=30) were randomly assigned to two equal groups of fifteen physical education students each. The groups were assigned as experimental group and control group in an equivalent manner. Experimental group participated the aerobic exercises for a period of twelve weeks and the post-tests were conducted. Blood cholesterol was assessed by blood test. The significant differences between the means of experimental group and control group for the pre-test and post-test scores were determined by dependent 't' test. The level of significance was fixed at 0.05 level of confidence. The results of the study showed that the experimental group that practiced aerobic exercises reduced blood cholesterol.

KEYWORDS: Aerobic Exercises, Blood Cholesterol, Physical Education.

INTRODUCTION

Aerobic exercise uses large muscle group rhythmically and continuously and elevate the heart breathing for a sustained period. Common examples include walking, jogging, running, swimming, rowing, stair climbing, cycling, cross-country skiing, step and dance exercise classes, roller skating and the more forms of tennis, racquet ball and squash. Aerobic exercise refers to exercise that is of moderate intensity, undertaken for a long duration. Aerobic means "with oxygen", and refers to the use of oxygen in a muscle's energy-generating process. Many types of exercise are aerobic, and by definition are performed at moderate levels of intensity for extended periods of time. Aerobic exercise can reduce the risk of death due to cardiovascular problems. In addition, high-impact aerobic activities (such as jogging or jumping rope) can stimulate bone growth, as well as reducing the risk of osteoporosis for both men and women. There are various types of aerobic exercise. In general, aerobic exercise is one performed at a low to moderate level of intensity over a long period of time (Kin et al. 2001).

METHODOLOGY

The purpose of the study was to determine the effect of aerobic exercises on blood cholesterol among physical education students. In order to achieve the purpose of this study the researcher has selected 30 physical education students from Sri Sarada College of Physical Education for Women, Salem, Tamilnadu India at random and their age ranged from 18 to 25 years. The subjects were divided into two equal groups. The study was formulated as a true random group design, consisting of a pre-test and post-test. The subjects (n=30) were randomly assigned to two equal groups of fifteen physical education students each. The groups were assigned as experimental group and control group in an equivalent manner. Experimental group participated the aerobic exercises for a period of twelve weeks and the post-tests were conducted. Blood cholesterol was assessed by blood test. The significant differences between the means of experimental group and control group for the pre-test and post-test scores were determined by dependent 't' test. The level of significance was fixed at 0.05 level of confidence.

RESULTS

TABLE I
DESCRIPTIVE ANALYSIS OF PRE TEST AND POST TEST MEANS OF EXPERIMENTAL AND CONTROL GROUP ON BLOOD CHOLESTEROL

S.No	Variables	Pre Test Mean	Post Test Mean
1	Blood Cholesterol	Experimental:126.65	Experimental:117.26
		Control:127.16	Control:127.24

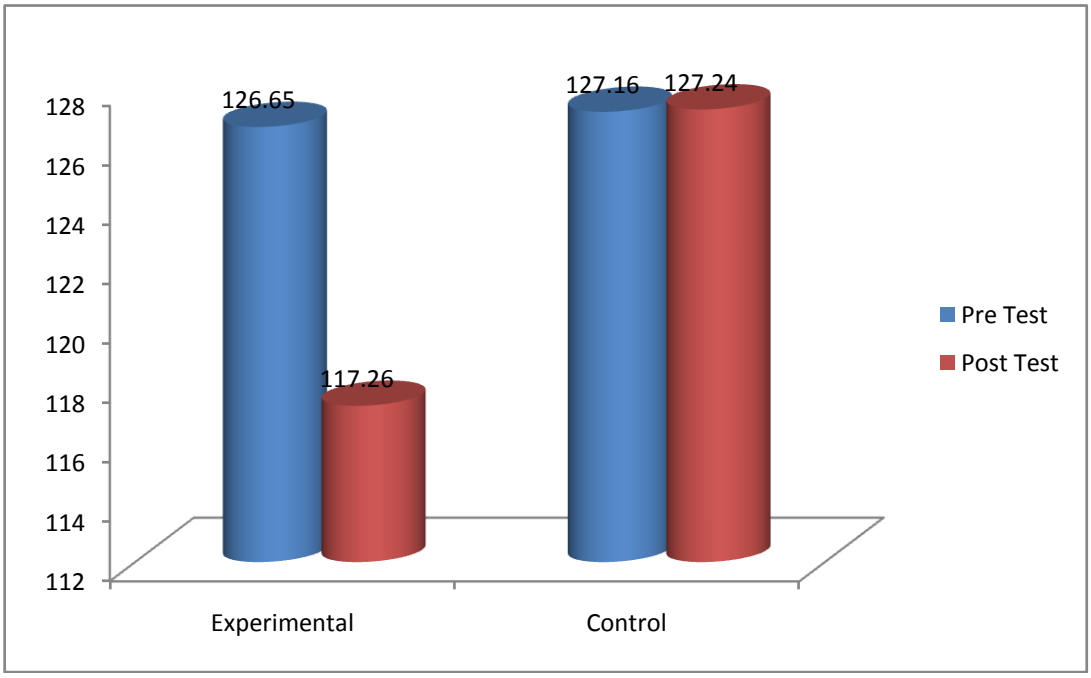
TABLE II
COMPUTATION OF 't' RATIO BETWEEN THE PRE TEST AND POST TEST MEANS OF BLOOD CHOLESTEROL OF EXPERIMENTAL AND CONTROL GROUPS

Variables	Groups	Mean diff	SD	σ DM	't' ratio
Blood Cholesterol	**Experimental**	**9.38**	**1.96**	**0.50**	**18.45***
	Control	**0.08**	**2.44**	**0.63**	**0.13**

*Significant at 0.05 level

An examination of table II indicates that the obtained 't' ratio was 5.53 on blood cholesterol of experimental group was found to be greater than the required table value of 2.14 at 0.05 level of significance for 14 degrees of freedom. So it was found to be significant. The results of this study showed that 6 weeks practice of yogic exercises produced a significant improvement in blood cholesterol. Hence the formulated hypothesis related to this was accepted. The obtained 't' ratio was 0.13 on blood cholesterol of control group were found to be lesser than the required table value of 2.14 at 0.05 level of significance for 14 degrees of freedom. So it was found to be not significant. The mean scores of blood cholesterol of experimental and control group were shown graphically in figure I.

FIGURE I
BAR DIAGRAM SHOWING THE PRE MEAN AND POST MEAN OF BLOOD CHOLESTEROL OF EXPERIMENTAL AND CONTROL GROUP



CONCLUSION

1. The results of the study showed that the experimental group that practiced aerobic exercises reduced blood cholesterol. This may be due to the nature of the aerobic exercises programme that was advocated in the training schedule.

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