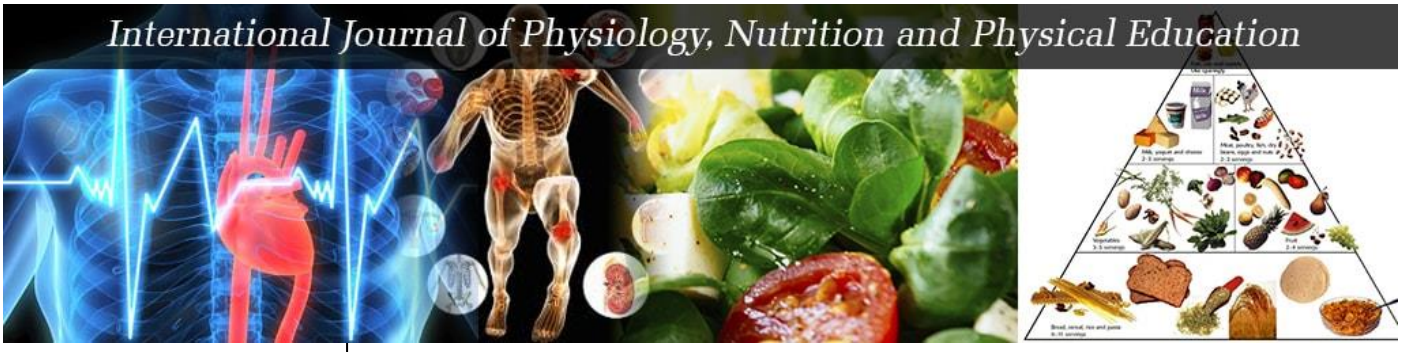

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The effect of aerobic exercises on blood pressure variables of women college students

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Abstract
The main aim of this study is to find Aerobic Exercises on Blood Pressure Variables of Women. Considering the mentioned objective, 40 students of B.A.J.S.S. Arts and Commerce College for women, Ranebennur, Haveri District of Karnataka state, India are selected as cases for this study and they are randomly divided into training group and controlling group. The first group, participated in Aerobic Exercises training process continued 12 weeks, while; the latter group did not participate in any exercise programs and continued with their daily activities.

Keywords: aerobic exercises, blood pressure

Introduction
Physical exercise 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. Frequent and regular physical exercise boosts the immune system, and helps prevent the "diseases of affluence" such as heart disease, cardiovascular disease, Type 2 diabetes and obesity. It also improves mental health, helps prevent depression, helps to promote or maintain positive self-esteem, and can even augment an individual's sex appeal or body image, which is also found to be linked with higher levels of self-esteem. Childhood obesity is a growing global concern and physical exercise may help decrease some of the effects of childhood and adult obesity. Health care providers often call exercise the "miracle" or "wonder" drug-alluding to the wide variety of proven benefits that it provides

Aerobic exercise meaning
Aerobic exercise is any physical activity that makes you sweat, causes you to breathe harder, and gets your heart beating faster than at rest. It strengthens your heart and lungs and trains your cardiovascular system to manage and deliver oxygen more quickly and efficiently throughout your body.

Meaning of blood pressure
The force of circulating blood on the walls of the arteries. Blood pressure is taken using two measurements: systolic (measured when the heart beats, when blood pressure is at its highest) and diastolic (measured between heart beats, when blood pressure is at its lowest). Blood pressure is written with the systolic blood pressure first, followed by the diastolic blood pressure (for example 120/80).

The aim of this study
The aim of this study is to find the effect of 12 weeks of Aerobics Exercise on the Blood Pressure of women's college students.

Method
Study sample
Study participants were recruited from the class of B.A.J.S.S. Arts and Commerce College for women, Ranebennur, Haveri District of Karnataka state, India. The purposeful sampling Method was used to select 40 students aged between 16 to 22 years. Then, the random sampling method was adopted to divide students into the experimental (N=20) and control(N=20) groups.

Study methods and procedures
The study was conducted Every Monday to Friday, the Aerobics Exercise training was administered from 5;00 p.m to 6.00p.m. The random sampling method helped to divide students into the experimental (N=20) and control (N=20) groups, and all students went through a pre-test of Blood Pressure. Students in the experimental group were then provided with 12 weeks of Aerobics Exercise training, and those in the control group were asked to keep regular hours. A post-test of Blood Pressure was performed after the 12-week training intervention.

Training prescriptions in the experimental group
Exercise pattern
Aerobic exercise includes increasing the duration of sessions 5 to 10 minutes every 1-2 weeks for the first 4-6 weeks, Second 6-8 weeks, Third 8-12 weeks. Frequency and intensity can be tolerated as progressed. Overall volume should be monitored for adverse effects decreased if necessary. Aerobics was the primary activity in this experimental study. Students had done some Aerobic exercise in every training session. In addition, the students Performed warm-up and relaxation stretching exercises, which included stretches of the neck, arms, waist, leg muscles, ankles, and wrists. Both warm-up and relaxation stretches took 5 minutes, leading to a total of 45 minutes per training session.

Exercise duration and frequency
Students in the experimental group were provided with a 12 - week Aerobics training program, delivered 6 times a week, for 45 minutes each time.

Data management and analysis
Test results were analyzed using SPSS 17.0 for Windows.

Statistical methods included:
The significance was fixed at 0.05 levels to test the 'F' ratio obtained by analysis of covariance.

Results
In order to gather the required data, 40 students between 16 to 22 years old of B.A.J.S.S. Arts and Commerce College for women athletes Ranebennur, Haveri District of Karnataka state, India. Some families have accepted to participate in the study. The selected cases are divided into two groups (20 for each) which are training and controlling groups. The demographic characteristics of the subjects are presented in Table. The results has shown that the two groups significance differences in Blood Pressure.

Table 1: Computation of Analysis of Covariance of Experimental and Control Groups on Blood Pressure

Blood Pressure	Test	Experimental group-	Control group	Source of variance	Sum of the Squares	Df	Mean squares	F- Ratio	Remarks
Pre test	Mean	132.3500	130.4000	BG	80.230	1	80.230	.202	NS
	SD	18.25917	21.71441	WG	7135.570	18	396.421		
Post test	Mean	92.0000	130.9000	BG	709.717	1	709.717	13.934	S
	SD	12.89635	19.48792	WG	916.833	18	50.935		
Adjusted Post Test Means	Mean	132.6519	129.3071	BG	2029.105	1	2029.105	28.417	S
				WG	1213.877	17	71.4045		

**The level of significance is 0.05=table value = 2.15

Table shows the mean, SD values of pre-test of Experimental Group and control Group on Blood Pressure is observed that mean score value of Experimental and control Group are 132.3500 and 130.4000 and their SD values 18.25917 and 21.71441 respectively.
The calculated F- value found to be .202 at 0.05 level of significant it is found to be non significant it can be concluded that the Blood Pressure found to be similar among Experimental subjects and control Group subjects.
The mean, SD values of post- test of Experimental Group and control Group on Blood Pressure. It is observed that mean score value of Experimental and controls Group are 92.0000 and 130.9000 their SD value are 12.89635 and 19.48792 respectively.
The calculated F- value found to be 13.934 at 0.5 level of significant it is found to be significant it can be concluded that the Blood Pressure found to be significant difference among Experimental Group subjects and control Group subjects.
The mean values of adjusted post- test of Experimental Group subjects and control Group subjects on Blood Pressure found to be 132.6519 and 129.3071 respectively.
The calculated F- value found to be 28.417 at 0.05 level of significant there is a significant difference is observed between Experimental subjects and control group subjects.
The Blood Pressure Performance has been displayed in figure.

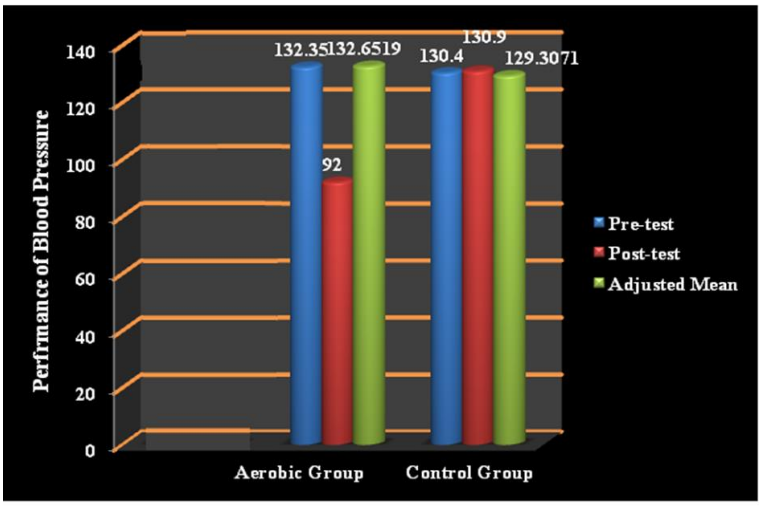

Fig 1: Figure bar diagram showing the pre, post and adjusted means of the experimental and control groups on blood pressure

The above figure indicates that the post-test values of Experimental group and adjusted post-test significantly improved the performance of Blood Pressure and also the post-test values of Blood Pressure were less than the pre-test values due to 12 weeks of Aerobic Exercise training. The Control group pre- test and post- test performance of Blood Pressure shows no improvement.

Conclusion

This study indicates that there was a highly significance difference in Blood Pressure between pretest and post-test among Experimental group of B.A.J.S.S. Arts and Commerce College for women, Ranebennur, Haveri District of Karnataka state, India. According to the obtained results, it is concluded that, Aerobics Exercise increases the Blood Pressure of 16 to 22 years college students

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