



Effect of Aerobic Dance on Selected Physiological Variables of College Men Volleyball Players

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Abstract

The purpose of the study was to determine the effect of aerobic dance on selected physiological variables of college men volleyball players. In order to achieve the purpose of this study the researcher has selected 40 men volleyball players from Annamalai University, Chidambaram, Tamilnadu 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=40) were randomly assigned to two equal groups of twenty players each. The groups were assigned as experimental group and control group in an equivalent manner. Experimental group participated the aerobic dance training for a period of six weeks and the post-tests were conducted. The significant differences between the means of experimental group and control group for the pre-test and post-test scores were determined by Analysis of co-variance. The level of significance was fixed at 0.05 level. Systolic and diastolic blood pressure of experimental group showed significant difference when compared to control group.

Keywords: Aerobic Dance, Volleyball, Blood Pressure.

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Introduction

Aerobic dance has become an extremely popular form of exercise over the past decade; the nature of this activity has evolved in several directions. For e.g. a destination is now made between “high-impact aerobics” involving repetitive jumping on one or both feet and “low-impact aerobics” in which one foot remains on the ground at all times. Some aerobic dance activities incorporate. Then use of hand held weights or weighted wrist and ankle bands to provide increased resistance. With interest in physical fitness booming in the past years, dozens for exercise programme have come and gone. But aerobic dancing has stood the test of time. Largely through word of mouth advertising it has grown from a single class in a church basement almost three decades ago to a nationwide craze today. A typical class begins with a ten-to fifteen minutes warm up period of stretching and floor work, followed by vertiform [vertical firmness] a booster to gradually accelerate the heart rate and then six to ten aerobic dances. During vertiform, students may use hand weights and ankle weights, if desired for further and strengthening. After each dance, heart rated is monitored to ensure. They reach working levels but not exceed safe limits. Class ends with a slow cool down dance and some post cool down stretches to gradually bring down students hearty rates.

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The term "Aerobic" means "living in air" or "utilizing oxygen" Aerobic exercises refer to those activities that require oxygen for prolonged periods and place such demands on the body that it is required to improve its capacity to handle oxygen. As a result of aerobic exercise, there are beneficial changes that occur in the lungs, the heart, and the vascular system.

Methodology

The purpose of the study was to determine the effect of aerobic dance on selected physiological variables of college men volleyball players. In order to achieve the purpose of this study the researcher has selected 40 men volleyball players from Annamalai University, Chidambaram, Tamilnadu 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=40) were randomly assigned to two equal groups of twenty players each. The groups were assigned as experimental group and control group in an equivalent manner. Experimental group participated the aerobic dance training for a period of six weeks and the post-tests were conducted. The significant differences between the means of experimental group and control group for the pre-test and post-test scores were determined by Analysis of co-variance. The level of significance was fixed at 0.05 level.

Results and Discussion

The detailed procedure of analysis of data and

interpretation were given below,

Results

Table I. Computation of mean and analysis of covariance of systolic blood pressure of experimental and control group

	Control	Experiment	Sum of variance	Sum of squares	df	Mean square	F
Pre test mean	120.85	122.30	BG	1.60	1	1.60	2.11
			WG	28.80	38	0.76	
Post test mean	120.90	120.50	BG	21.03	1	21.03	15.74*
			WG	50.75	38	1.34	
Adjusted mean	121.28	120.12	BG	9.56	1	9.56	23.98*
			WG	14.75	37	0.40	

Table value for df 1 and 38 was 4.10 * Significant at 0.05 level
 Table value for df 1 and 37 was 4.10

The obtained ‘F’ value for adjusted mean for systolic pressure were 23.98 was greater than the required value 4.10 at 0.05 level. Since the observed ‘F’ value on systolic pressure were highly significant, the adjusted mean differences between experimental and

control group was statistically significant. It was concluded that the treatment adopted to this study influenced systolic blood pressure. The bar diagram for obtained mean on systolic blood pressure for experiment group and control group are postulated in the figure I.

Figure I. Bar diagram showing the pre mean, post mean and adjusted mean of systolic blood pressure

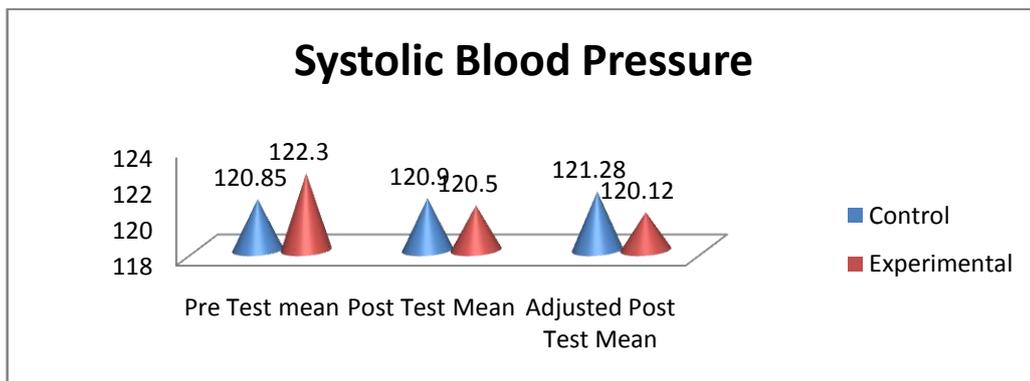


Table II. Computation of mean and analysis of covariance of diastolic blood pressure of experimental and control group

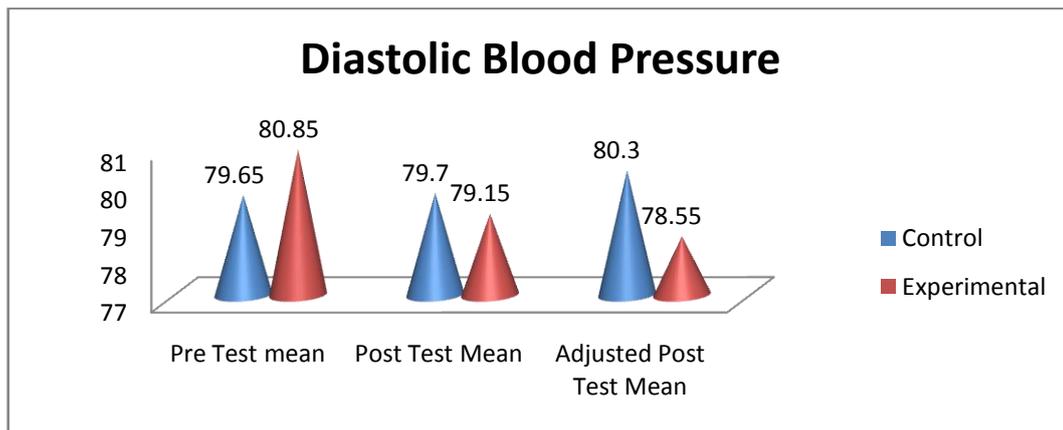
	Control	Experiment	Sum of variance	Sum of squares	df	Mean square	F
Pre test mean	79.65	80.85	BG	3.02	1	3.02	0.44
			WG	262.75	38	6.91	
Post test mean	79.70	79.15	BG	14.40	1	14.40	2.33
			WG	235.10	38	6.19	
Adjusted mean	80.30	78.55	BG	29.07	1	29.07	42.78*
			WG	25.14	37	0.68	

Table value for df 1 and 38 was 4.10 * Significant at 0.05 level
 Table value for df 1 and 37 was 4.10

The obtained 'F' value for adjusted mean for diastolic pressure were 42.78 was greater than the required value 4.10 at 0.05 level. Since the observed 'F' value on diastolic pressure were highly significant, the adjusted mean differences between experimental and control group was statistically significant. It was

concluded that the treatment adopted to this study influenced diastolic blood pressure. The bar diagram for obtained mean on diastolic blood pressure for experiment group and control group are postulated in the figure II.

Figure II. Bar diagram showing the pre mean, post mean and adjusted mean of diastolic blood pressure



Conclusion

Systolic and diastolic blood pressure of experimental group showed significant difference when compared to control group.

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