STAR
Research Journal

Available online at www.starresearchjournal.com (Star International Journal)

PHYSICAL EDUCATION

UGC Journal No: 63023

EFFECT OF BRISK WALKING TRAINING PROGRAMME ON BLOOD PRESSURE AMONG OBESE MEN

JAYAKUMAR. M

Assistant Professor in Physical Education, Government Engineering College, Kozhikode, Kerala.

ABSTRACT

The purpose of the study was to determine the effects of 12 weeks of brisk walking on blood pressure of obese men. 30 obese men were selected as subjects randomly from Kozhikode, Kerala within the age group of 30 to 50 years The subjects were randomly assigned to two groups that is an experimental group (N=15) and a control groups (N=15). The experimental group participated in brisk walking programme for a period of 12 weeks. The control group did not participate in any sort of physical activity during the same period. Blood pressure recorded in mm of Hg with a standard sphygmomanometer. The data pertaining to selected physiological variables were analysed by ANOVA to determine the difference between initial and final mean for experimental and control group at 0.05 `level of significance. The result of the study revealed that the significant difference was not observed in blood pressure of experimental group when compared to control group.

KEYWORDS: Walking, Obese, Blood Pressure.

INTRODUCTION

Obesity has a significant association with early mortality, as Obesity increases the risk of developing some diseases or may aggrevate disease caused by other factors. Diseases of the heart and circulatory system are frequently associated with obesity. High blood pressure appears to be related to obesity. Because extra fatty tissue requires extra blood and capillaries, there is an increased burden on the heart to pump blood to that tissues. Thus obesity can contribute to the development of cardiovascular disease and it decreases the chance of recovering from heart attack. The presence of excess fatty tissues aggrevates many types of bone and joint disorders as, extra weight of muscles and tissues and excess blood pressure would be more than what the bones and joints can easily bear. Obesity sometimes turns out to be fatal when it increases the risk of death from diabetes and cerebral haemorhage. Modern Technology has enabled present day society to exist in a world where the concept of hard or even moderate physical work is almost obsolete. We are constantly looking for different ways to make life even easier. People of present times have experienced more changes and crises than any other generation. The knowledge of atomic energy and the use of computers have increased the leisure time of the people. The energy crisis, pollution of environment and the frenzied place of living are some of the problems the world is facing today. These changes and crisis have altered the human environment. Brisk walking can be done as a regular exercise for sedentary age group due to the less strain and stress to the joints. Brisk walking helps to condition cardiorespiratory system, reduce risky disease like hypertension, obesity, back pain, heart disease. It helps to improve the mood state of the individual (Corbin et al. 1994).

METHODOLOGY

The purpose of the study was to determine the effects of 12 weeks of brisk walking on blood pressure of obese men. 30 obese men were selected as subjects randomly from Kozhikode, Kerala within the age group of 30 to 50 years The subjects were randomly assigned to two groups that is an experimental group (N=15) and a control groups (N=15). The experimental group participated in brisk walking programme for a period of 12 weeks. The control group did not participate in any sort of physical activity during the same period. Blood pressure recorded in mm of Hg with a standard sphygmomanometer. The data pertaining to selected physiological variables were analysed by ANOVA to determine the difference between initial and final mean for experimental and control group at 0.05 `level of significance.

RESULTS

The data pertaining to blood pressure for both experimental and control group were tested using ANOVA. The level of significant chosen was 0.05 level.

TABLE –I
ANALYSIS OF COVARIANCE ON SYSTOLIC BLOOD PRESSURE OF BRISK WALKING GROUP AND THE CONTROL GROUP

Test		BWTG	CG	SOV	SS	df	MS	*F* ratio
Pretest	Mean	120.93	119.86	B	8.533	1	8.533	.413
	SD	4.267	4.808	W	578.66	28	20.667	
Post test	Mean	120.133	120.40	B	.533	1	.533	.054
	SD	2.065	3.942	W	277.33	28	9.905	
Adjusted Post test	Mean	119.83	120.69	B	5.397	1	5.397	1.145
				W	5.397	27	3.761	

*Significant at 0.05 level of confidence

Table 1 shows that the pre test means of brisk walking training group and the control group on systolic blood pressure are 120.93 and 119.86 respectively. The obtained *F* ratio of 0.413 for the pre test mean is lesser than the table value 4.19 for df 1 and 28 required for significance at 0.05 level. The post tests mean of brisk walking group and control groups are 120.13 and 120.40 respectively. The obtained F ratio of 0.054 for post test mean is lesser than the table value 4.19 for df 1 and 28 required for significance at 0.05 level. The adjusted post test mean of brisk walking group and the control group are 119.83 and 120.69 respectively. The obtained *F* ratio of 1.145 for adjusted post test mean is lesser than the required table value 4.21 for df 1 and 27 required for significant at 0.05 level.

FIGURE I
THE PRE, POST AND ADJUSTED POST TEST MEAN VALUES OF BRISK WALKING GROUP AND CONTROL GROUP IN SYSTOLIC BLOOD PRESSURE

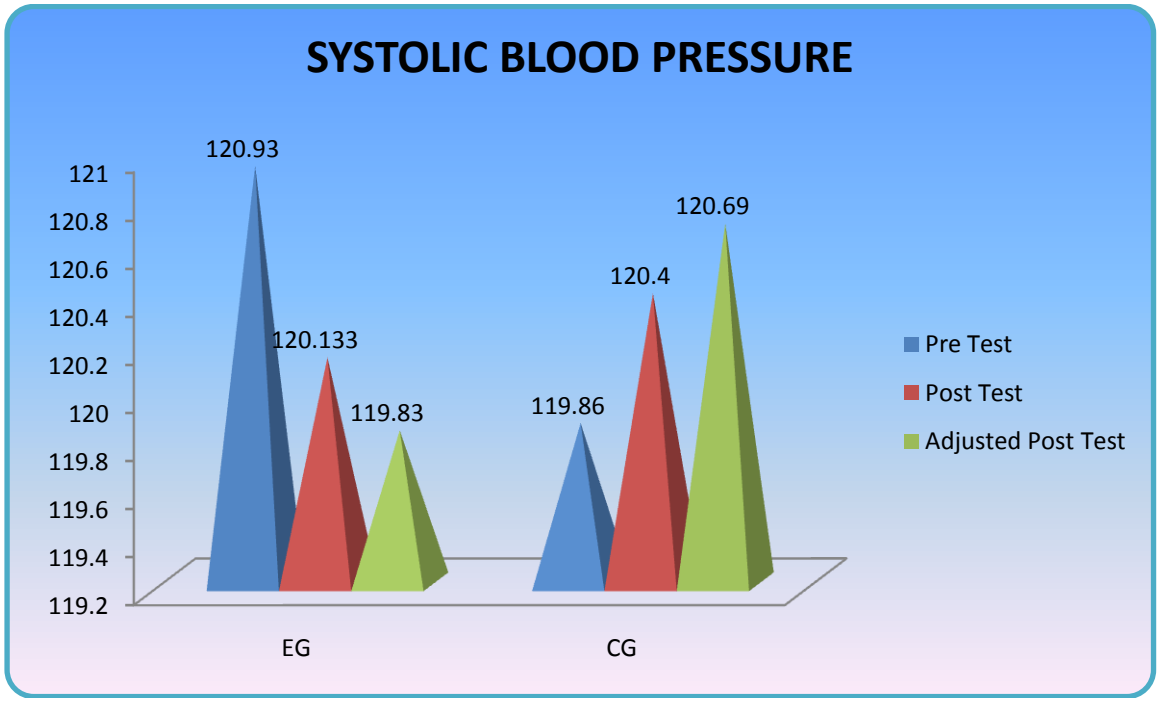


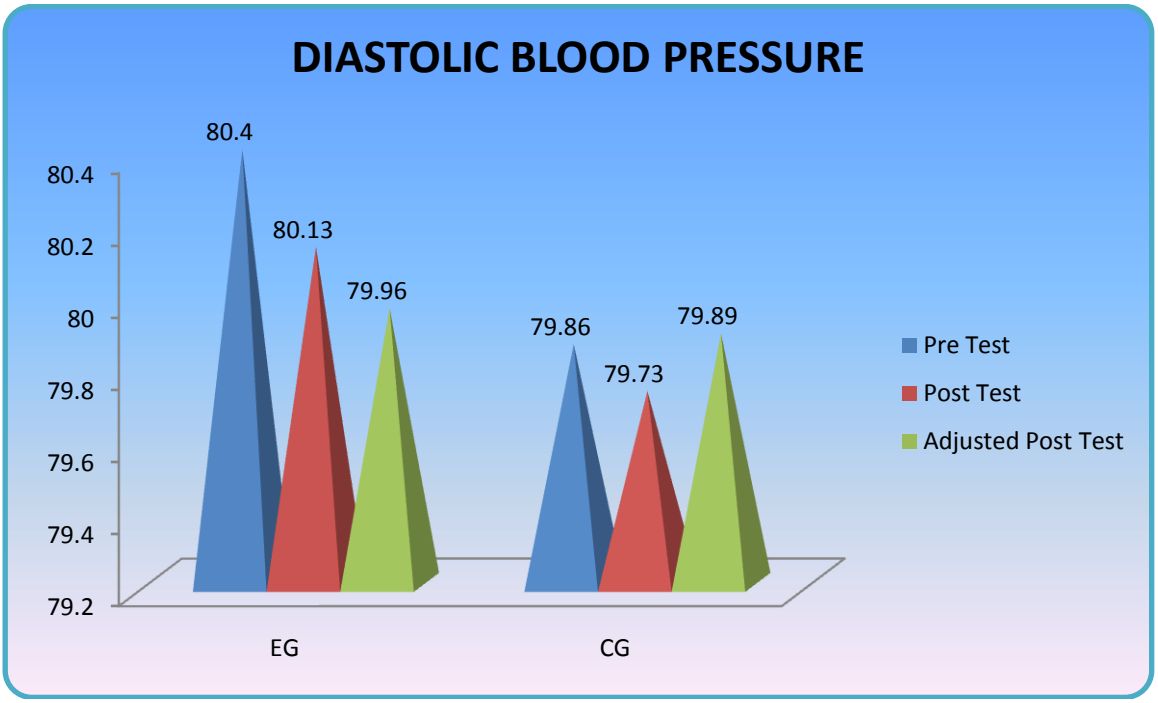
TABLE –II
ANALYSIS OF COVARIANCE ON DIASTOLIC BLOOD PRESSURE OF BRISK WALKING GROUP AND THE CONTROL GROUP

Test		SRTG	CG	SOV	SS	df	MS	*F* ratio
Pretest	Mean	80.40	79.86	B	2.133	1	2.133	.754
	SD	3.641	5.4230	W	597.33	28	21.33	
Post test	Mean	80.133	79.733	B	4.199	1	1.200	.749
	SD	2.325	4.199	W	322.67	28	11.52	
Adjusted Post test	Mean	79.968	79.89	B	.043	1	.036	.920
				W	92.66	27	3.432	

*Significant at 0.05 level of confidence

Table 2 shows that the pre test means of brisk walking training group and the control group on diastolic blood pressure are 80.40 and 79.86 respectively. The obtained *F* ratio of 0.754 for the pre test mean is lesser than the table value 4.19 for df 1 and 28 required for significance at 0.05 level. The post tests mean of brisk walking group and control groups are 80.13 and 79.73 respectively. The obtained F ratio of 0.749 for post test mean is lesser than the table value 4.19 for df 1 and 28 required for significance at 0.05 level. The adjusted post test mean of brisk walking group and the control group are 79.96 and 79.89 respectively. The obtained *F* ratio of .920 for adjusted post test mean is lesser than the required table value 4.21 for df 1 and 27 required for significant at 0.05 level.

FIGURE II
THE PRE, POST AND ADJUSTED POST TEST MEAN VALUES OF BRISK WALKING GROUP AND CONTROL GROUP IN DIASTOLIC BLOOD PRESSURE



CONCLUSION

Participation in 12 weeks of brisk walking resulted no changes in systolic and diastolic blood pressure.

REFERENCES

1. Adams Gene, M. (1994). *Exercise physiology Lab Manual*. United States of America; Wm.C. Brown publishers.
2. Corbin, B. Charles., &Lindsey Ruth. (1994). *Concept of Fitness and wellness with Laboratories*, Iowa; Wm.C. Brown publishers.
3. Edward, T. Howley., & B. Don Franks. (1986). *Health and fitness instructors hand book*. Pubique; Human kinetic publishers.
4. Edward Fox. (1993). *The Physiological Basis for Exercise and Sports*, Kerper Boulevard, Dubuque: W.M.C. Brown Communications, Inc.
5. https://aaptiv.com/magazine/exercise-to-lower-blood-pressure.
6. https://www.livescience.com/42081-normal-heart-rate.html.
7. https://www.stack.com/a/how-to-improve-athleticism-with-sand-workouts.
8. Noble Bruce, J. (1986). *Physiology of Exercise and Sports*. Times: Mirror, Mosby College publishing.
9. Roger, W. Earle., & Thomas, R.Baechle. (1994). *Essentials of Strength Training and Conditioning*, Developed by the National Strength and Conditioning Association (NSCA) and now in its fourth edition.