



ISSN: 2456-4419

Impact Factor: (RJIF): 5.18

Yoga 2021; 6(1): 143-145

© 2021 Yoga

www.theyogicjournal.com

Received: 15-11-2020

Accepted: 18-12-2020

Dr. C Krishnamoorthi

Guest Lecturer, Department of
Physical Education, Bharathiar
University, Coimbatore,
Tamil Nadu, India

N Kodeeswaran

Ph.D, Research and Scholar,
Department of Physical
Education, Bharathiar
University, Coimbatore,
Tamil Nadu, India

S Senthil Kumaran

Director, Unicorn Fitness,
Madurai, Tamil Nadu, India

Dr. C A Abdhul Halik

Ph.D, Research and Scholar,
Department of Physical
Education, Bharathiar
University, Coimbatore,
Tamil Nadu, India

Effect of aerobic dance training on body composition and cardio respiratory endurance among obese

Dr. C Krishnamoorthi, N Kodeeswaran, S Senthil Kumaran and A Abdhul Halik

Abstract

Dance aerobics is a fun activity that helps in strengthening your body, and gives you energy to carry out your day-to-day activities effectively and efficiently. The purpose of the study was to find out the effect of aerobic dance training on selected health related fitness variables among obese men. 30 subjects were selected from MIET College Trichy, Tamilnadu. The subject's age were ranged from 18 to 22 years. The selected subjects were divided into 2 groups with 15 subjects in each group one is experimental group and another one is control group. The training periods of the experimental were eight weeks, weekly 5 days with 60 minutes. Control group did not undergo any training programme other than their routine work. The data were collected on health related fitness variables namely body composition, cardio respiratory endurance for each groups before the experimental period(pre-test), after eight weeks of training(post-test) respectively. In order to test the effect of training, the collected data from each groups before, during and after experimentation on health related fitness variables were statistically analyzed by using dependent 't' test. In all the cases the level of confidence is fixed at 0.05 to test the significance.

Keywords: aerobic dance training (ADT), body composition, cardio-respiratory endurance

Introduction

Aerobic Dance

In this competitive world, many people find it hard to dedicate time for physical activities like exercises, although one of their first priorities is to stay in perfect shape. Here comes the easy method of maintaining a perfect figure-dance aerobics. As the name suggests, dance aerobics is an exercise that combines the rhythmic steps of aerobics with graceful dance movements. High impact exercises involve intense jumping actions that are synchronized with the rhythmic beats of the music being played. Low impact exercise, the second type of dance aerobics, involves less jumping action, but more of footwork, which are co-ordinate with the rhythm of the music being played. Step aerobics is performed in a raised platform, while water aerobics is done in waist-deep water. Typically, a dance aerobic exercise is performed for about 20-30 minutes. The steps are performed in a rhythmic way, with 4 or 8 counts. Dance aerobics is a fun activity that helps in strengthening your body, and gives you energy to carry out your day-to-day activities effectively and efficiently.

Health-Related Physical Fitness

Health-related physical fitness is defined as fitness related to some aspect of health. This type of physical fitness is primarily influenced by an individual's exercise habits; thus, it is a dynamic state and may change. Physical characteristics that constitute health-related physical fitness include strength and endurance of skeletal muscles, joint flexibility, body composition, and cardio-respiratory endurance. All these attributes change in response to appropriate physical conditioning programs, and all are related to health.

Methods and Tools

To achieve the purpose of this study thirty obese men was selected from MIET College, Trichy, Tamilnadu were randomly selected as subjects and their age group range between 18 to 22 years.

Corresponding Author:

Dr. C Krishnamoorthi

Guest Lecturer, Department of
Physical Education, Bharathiar
University, Coimbatore,
Tamil Nadu, India

The study was formulated as pre and post test random group design, in which thirty obese men were divided into two equal groups. The experimental group-1 (n=15, ADT) underwent aerobic dance training and group-2 served as control group (n=15, CG). In this study, one training programme were adopted as independent variable and the ability of body composition and cardio-respiratory endurance was selected as dependent variable and it's was tested by BMI test and measured in kg's and cm's another variable was tested by 9mins run or walk was measured in meters. The selected

subjects were undergone eight weeks of Aerobic dance training. The performance of body composition and cardio-respiratory endurance was tested before and after the training period. The following health related fitness variables such as body composition and cardio respiratory endurance were selected experimentation on health related fitness variables were statistically analyzed by using dependent 't' test. In all the cases the level of confidence is fixed at 0.05 to test the significance.

Table I: Difference in Mean Score of Control and Experimental Group of Body Composition (BMI) (Scores in Numbers)

Group		N	Mean	SD	SE	't' ratio
Control	Pre	15	29.23	0.64	0.16	1.08
	Post	15	29.28	0.71	0.18	
Experimental	Pre	15	31.76	1.47	0.32	20.98*
	Post	15	28.95	1.73	0.38	

*significant level 0.05 level (degree of freedom 2,14, 1 and 14)

Table I reveals the computation of mean, standard deviation and 't' ratio on selected variables namely Body composition of experimental group. The obtained 't' ratio on Body composition were 20.98 respectively. The required table value was 2.14 for the degrees of freedom 1 and 14 at the 0.05 level of significance. Since the obtained 't' values were greater than the table value it was found to be statistically significant.

Further the computation of mean, standard deviation and 't' ratio on selected variables parameters namely Body composition of control group. The obtained 't' ratio on Body composition were 1.08 respectively. The required table value was 2.14 for the degrees of freedom 1 and 14 at the 0.05 level of significance. Since the obtained 't' values were lesser than the table value it was found to be statistically not significant.

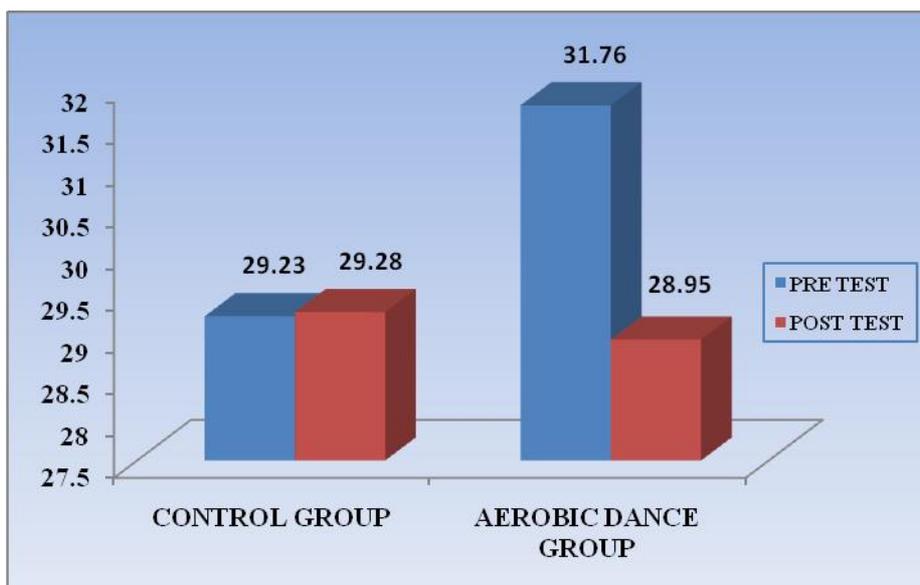


Fig 1: Bar Diagram Showing the Mean Value on Experimental Group and Control Group of Body Composition

Table II: Difference in Mean Score of Control and Experimental Group of Cardio-Respiratory Endurance (Scores in Numbers)

Group		N	Mean	SD	SE	't' ratio
Control	Pre	15	943.00	116.09	29.97	0.32
	Post	15	942.66	117.38	30.307	
Experimental	Pre	15	991.33	151.88	39.22	4.71*
	Post	15	1022.00	156.35	40.36	

*significant level 0.05 level (degree of freedom 2,14, 1 and 14)

Table I reveals the computation of mean, standard deviation and 't' ratio on selected variables namely Cardio respiratory endurance of experimental group. The obtained 't' ratio on Cardio respiratory endurance were 4.71 respectively. The required table value was 2.14 for the degrees of freedom 1 and 14 at the 0.05 level of significance. Since the obtained 't' values were greater than the table value it was found to be statistically significant.

Further the computation of mean, standard deviation and 't' ratio on selected variables parameters namely Cardio respiratory endurance of control group. The obtained 't' ratio on Cardio respiratory endurance were 0.32 respectively. The required table value was 2.14 for the degrees of freedom 1 and 14 at the 0.05 level of significance. Since the obtained 't' values were lesser than the table value it was found to be statistically not significant.

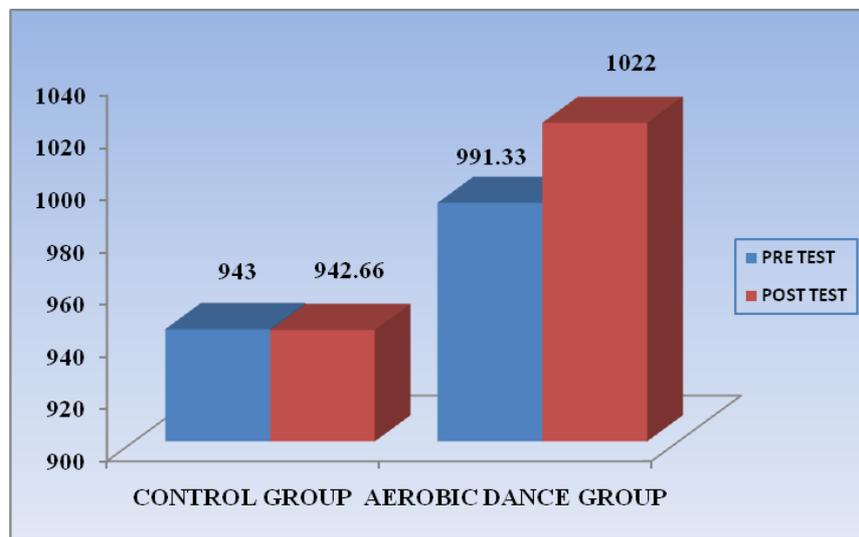


Fig 2: Bar Diagram Showing the Mean Value on Experimental Group and Control Group of Cardio Respiratory Endurance

Discussion on Findings

The present study examined the influence of aerobic dance training on health related fitness variables of obese men. The results of this study indicated that aerobic dance training is more efficient to bring out desirable changes over the body composition, cardio respiratory endurance of obese men. Silva, *et al.*, (2014) [5]. Effects of aerobic exercise on the body composition and lipid profile of overweight adolescents. Park *et al.*, (2015) [3]. The effects of combined exercise on health-related fitness, endotoxin, and immune function of postmenopausal women with abdominal obesity. Hence, it concluded that for body composition and cardio respiratory endurance on significantly improved of obese men.

Conclusions

From the results of the study and discussion the following conclusions were drawn.

1. Based on the result of the study it was concluded that the eight weeks of aerobic dance training have been significantly improved body composition of obese men.
2. The eight weeks of aerobic dance training have been significantly improved cardio respiratory endurance of obese men.

Reference

1. Al Saif A, Alsenany S. Aerobic and anaerobic exercise training in obese adults. *Journal of physical therapy science* 2015;27(6):1697-1700.
2. Suman C. Aerobic exercise programme and reduction in body weight and Body Mass Index (BMI). *Galore International Journal of Health Sciences and Research* 2016;1(1):2456-9321.
3. Park SM, Kwak YS, Ji JG. The effects of combined exercise on health-related fitness, endotoxin, and immune function of postmenopausal women with abdominal obesity. *Journal of immunology research* 2015.
4. Minasian V, Marandi SM, Kelishadi R, Abolhassani H. Correlation between aerobic fitness and body composition in middle school students. *International journal of preventive medicine* 2014;5(Suppl 2):S102.
5. Silva DAS, Petroski EL, Pelegrini A. Effects of aerobic exercise on the body composition and lipid profile of overweight adolescents. *Revista Brasileira de Ciências do Esporte* 2014;36(2):295-309.
6. Shahana A, Nair US, Hasrani SS. Effect of aerobic

exercise programme on health related physical fitness components of middle aged women. *British Journal of Sports Medicine* 2010;44(Suppl 1):i19-i19.

7. Regaieg S, Charfi N, Kamoun M, Ghroubi S, Rebai H, Elleuch H *et al.* The effects of an exercise training program on body composition and aerobic capacity parameters in Tunisian obese children. *Indian journal of endocrinology and metabolism* 2013;17(6):1040.
8. Kostrzewa-Nowak D, Nowak R, Jastrzębski Z, Zarębska A, Bichowska M, Drobnik-Kozakiewicz I *et al.* Effect of 12-week-long aerobic training programme on body composition, aerobic capacity, complete blood count and blood lipid profile among young women. *Biochemia medica* 2015;25(1):103-113.
9. Shahram G, Mina Z, Ramin S, Rastegar H. Effect of 8 weeks of aerobic on body composition and blood pressure in postmenopausal women. *Физическое воспитание студентов* 2014;5:74-78.
10. Kim JW, Ko YC, Seo TB, Kim YP. Effect of circuit training on body composition, physical fitness, and metabolic syndrome risk factors in obese female college students. *Journal of exercise rehabilitation* 2018;14(3):460.
11. Pelemis VM, Macura M, Andreovski-Krivokuća N, Ujsasi D, Pelemiš M, Lalić S. The influence of aerobic training on the biochemical and physical parameters of obese women. *Facta Universitatis, Series: Physical Education and Sport* 2016,217-228.
12. Hosiso M, Rani S, Rekoninne S. Effects of aerobic exercise on improving health related physical fitness components of Dilla University sedentary female community. *International Journal of Scientific and Research Publications* 2013;3(12):1-6.
13. Jakeiso A. Effect of Selected Aerobic Exercises on the Improvement of Cardiovascular Endurance for Performance of Athlete: The Case of Fonko Preparatory School, Fonko, Hadiya Zone, Snnpr, Ethiopia (Doctoral dissertation, Addis Ababa University) 2017.
14. Shahana A, Nair US, Hasrani SS. Effect of aerobic exercise programme on health related physical fitness components of middle aged women. *British Journal of Sports Medicine* 2010;44(Suppl 1):i19-i19.