



ISSN: 2456-0057
IJPNPE 2017; 2(2): 853-855
© 2017 IJPNPE
www.journalofsports.com
Received: 25-05-2017
Accepted: 26-06-2017

RG Giridharaprasath
PhD, Research Scholar
Department of Physical
Education, Bharathiar
University, Coimbatore, Tamil
Nadu, India

Dr. K Murugavel
Professor & Head and Director,
Department of Physical
Education, Bharathiar
University, Coimbatore, Tamil
Nadu, India

Health related parameters response to the influence of aerobic dance on tribal students

RG Giridharaprasath and Dr. K Murugavel

Abstract

This study investigated the health related parameters response to the influence of on tribal students. To achieve the purpose of the study 30 tribal students were selected from N.S.Iya memorial higher secondary school, Ketti Palada, The Nilgiris. The subjects were randomly assigned to two equal groups (n=15). Group- I underwent aerobic dance (ADG) and group - II was acted as control group (CG). The aerobic dance was given to the experimental group for 3 days per week (Monday, Wednesday and Friday) for the period of twelve weeks. The control group was not given any sort of training except their routine work. The health related fitness parameters of were measured before and after training period. The data collected from the subjects was statistically analyzed with 't' test to find out significant improvement if any at 0.05 level of confidence. The result of the body composition, cardio respiratory endurance, muscular strength and flexibility speculated significant improvement due to influence of Aerobic dance with the limitations of (diet, climate, life style) status and previous training. The result of the present study coincide findings of the investigation done by different experts in the field of sports sciences. Aerobic dance significantly improved body composition, cardio respiratory endurance, muscular strength and flexibility of Tribal students.

Keywords: body composition, cardio respiratory endurance, muscular strength, flexibility and Tribal students

Introduction

Aerobic dance is a fitness sport that combines the health and figure benefits of jogging with the fun of dancing. Aerobic dancing is a fun way to get fit. It combines fat burning aerobic movements, muscle building exercises and stretching into routines that are performed according to music. It is a series of callisthenic exercise movements, accompanied by music, a technique of motivation. Aerobic dance is essential to a healthy cardiovascular system and is an activity that can be sustained for an extended period of time without building any oxygen debt in the muscles. It is a type of dance that overloads the heart and lungs and causes them to work harder than they do when a person is at rest. Aerobic dance is the type of activity in which the amount of oxygen taken in equal to the amount of oxygen required.

Dancing is moving rhythmically to any musical accompaniment. Aerobic dancing is an easy, natural, pleasurable and satisfying form of exercise good for cardiovascular benefits. It helps relieve tensions and provides the opportunity for self-expression. It makes one feel better and look better. It certainly develops grace and poise and gives one a feeling of self-confidence. Aerobic dancing is a very good activity for people who want to be physically fit and stay fit. If done properly, it contributes to some degree in the maintenance of youthful fitness, thus helps slow down aging.

Methods

Experimental Approach to the Problem

In order to address the hypothesis presented herein, we selected 30 Tribal students were selected from N.S. Iya memorial higher secondary school, Katti Palada at The Nilgiris. The subjects were randomly assigned in to two equal groups namely, Aerobic dance group (ADG) (n=15) and Control group (CG) (n=15). The respective training was given to the experimental group the 3 days per weeks (alternate days) for the training period of twelve weeks. The control group was not given any sort of training except their routine.

Correspondence
RG Giridharaprasath
PhD, Research Scholar
Department of Physical
Education, Bharathiar
University, Coimbatore, Tamil
Nadu, India

Design

The evaluated health related fitness parameters were muscular strength was assessed by sit ups and the unit of measurement was in counts, flexibility was assessed by sit and reach test and the unit of measurement was in centimetre, cardio respiratory endurance was assessed by 1 mil run and unit of measurement was in minutes and body composition was assessed by skin fold calliper and unit of measurement was in centimetre. The parameters were measured at baseline after 12 weeks of aerobic dance were examined.

Training programme

The training programme was lasted for 45 minutes for session in a day, 3 days in a week for a period of 12 weeks duration.

These 45 minutes included 10 minutes warm up, aerobic dance for 30 minutes and 10 minutes cool down. The equivalent in aerobic dance is the length of the time each action in total 3 day per weeks (Monday, Wednesday and Friday).

Statistical Analysis

The collected data before and after training period of 12 weeks on the above said variables due to the impact of aerobic dance was statistically analyzed with ‘t’ test to find out the significant improvement between pre and post test. In all cases the criterion for statistical significance was set at 0.05 level of confidence. (P < 0.05)

Table 1: Computation of ‘t’ ratio on health related fitness parameters of tribal students on experimental group and control group (Scores in numbers)

Group	Test	Mean	N	Std. Deviation	Std. Error Mean	T ratio	
EXPERIMENTAL GROUP	Muscular strength	Pre test	25.33	15	1.75	0.56	6.96*
		Post test	29.26	15	1.09		
	flexibility	Pre test	17.73	15	0.70	0.40	5.32*
		Post test	19.86	15	1.18		
	CRE	Pre test	11.51	15	1.57	0.03	3.84*
		Post test	11.37	15	1.62		
	Body Composition	Pre test	19.66	15	3.22	0.58	2.28*
		Post test	18.33	15	2.43		
CONTROL GROUP	Muscular strength	Pre test	25.13	15	1.84	0.58	0.11
		Post test	25.06	15	0.79		
	flexibility	Pre test	17.40	15	1.18	0.45	1.02
		Post test	16.93	15	1.33		
	CRE	Pre test	11.62	15	1.51	0.58	0.78
		Post test	12.08	15	1.48		
	Body Composition	Pre test	19.93	15	1.83	0.75	0.17
		Post test	20.06	15	2.37		

*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 health related fitness parameters namely muscular strength and endurance, flexibility, cardio respiratory endurance and body composition of experimental group. The obtained ‘t’ ratio on muscular strength flexibility, cardio respiratory endurance and body composition were 6.96, 5.32, 3.84 and 2.28 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 health related fitness parameters namely muscular strength and endurance, flexibility, cardio respiratory endurance and body composition of control group. The obtained ‘t’ ratio on muscular strength and flexibility were 0.11, 1.02, 0.78 and 0.17 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.

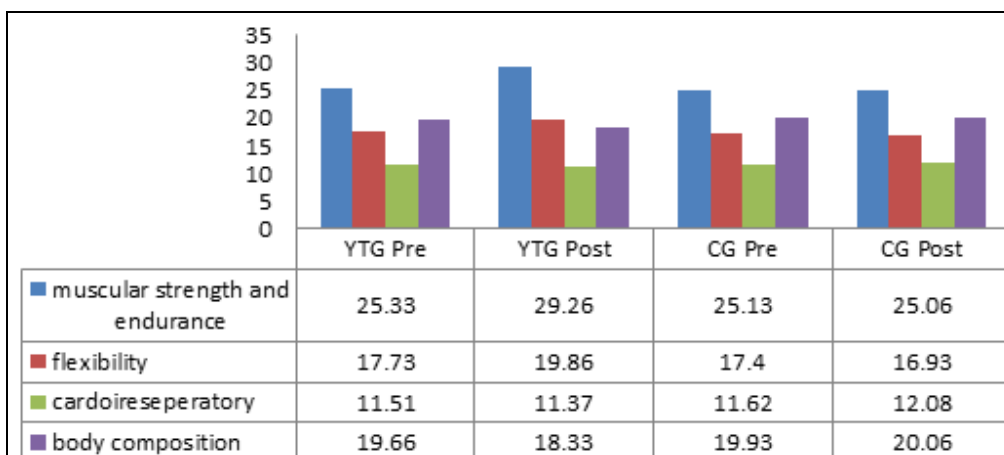


Fig 1: Bar diagram showing the mean value on health related fitness parameters of tribal students on experimental and control group (Scores in numbers)

Discussion and Findings

The present study experimented the impact of twelve weeks aerobic dance on the health related fitness parameters of the Tribal students. The results of this study indicated that an aerobic dance is more efficient to bring out desirable changes over the muscular strength and endurance, flexibility, cardio respiratory endurance and body composition of the Tribal students. The finding of the present study had similarity with the findings of the investigators referred in this study. Rahmat *et al.*, (2015) ^[4] six weeks of aerobic dance had significant effects on the cardiovascular fitness and body composition of sedentary women. Fatma (2012) ^[2] investigated the effects of an eight-week step-aerobic dance exercise programme on weight loss and body composition parameters in middle-aged sedentary obese women. Sasa *et al.*, (2013) ^[5] conclude that aerobic dance decreases subcutaneous fatty tissue and body composition of the young women. Swathi *et al.*, (2015) ^[1] concluded that the physical fitness variables namely cardio respiratory endurance, abdominal strength and flexibility are significantly improved due to aerobic training. Lee *et al.*, (2013) ^[3] concluded that Aerobics and Exercise Perception course could improve Exercise Attitude of the middle-aged and elderly participants and enhance the cardiopulmonary, muscular, and flexibility fitness. Shemelis *et al.*, (2013) ^[6] concluded that Moderate aerobic dance has positive effect on improvement of health related physical fitness components of sedentary female communities.

From of result of the present study, it is speculated that the observed changes in muscular strength flexibility, cardio respiratory endurance and body composition may properly designed aerobic dance.

Conclusions

1. It was concluded that twelve weeks aerobic dance significantly improved the muscular strength and endurance, flexibility, cardio respiratory endurance and body composition of the tribal students.
2. Aerobic dance are one among the most appropriate means to bring about the desirable changes over health related fitness parameters of tribal students.

Reference

1. Annadurai, Swathi Priya. Effects of Aerobic Training and Zumba Training on Physical Fitness Variables of Middle Age Obese Women. International Journal of Recent Research and Applied Studies, 2015; 2(6):1.
2. Fatma Arslan. The effects of an eight-week step-aerobic dance exercise programme on body composition parameters in middle-aged sedentary obese women International Sport Medical Journal, 2011; 12(4):160-168.ISSN:1528-3356.
3. Tsui-Er Lee. Effects of Aerobics Intervention on Health-related Physical Fitness and Exercise Behaviour of the middle-aged and elderly people International Journal of Sport and Exercise Science, 2013; 5(1):1-6.
4. Rahmat Adnan, Sherry Shareena Hazni, Mazlifah Omar, Norasrudin Sulaiman, Mastura Misdan The effects of aerobic dance on cardiovascular fitness and body composition in sedentary women Biochemical Medical Zagreb. 2015; 25(1):103-113.
5. Sasa Pantelic, Zoran Milanovic, Goran Sporis, Jelica Stojanovic Tomic Effects of a Twelve-Week Aerobic Dance Exercises on Body Compositions Parameters in Young Women International Journal of Morphology version On-line. 2013; (4):1243-1250. ISSN 0717

950231.

6. Shemelis Rekoninne, Sangeeta Rani, Mathewos Hosiso. 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.ISSN:2250-3153.