IMPACT OF AEROBIC DANCE ON VITAL CAPACITY AMONG COLLEGE MALE STUDENTS

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ABSTRACT

The purpose of the present study was to find out the impact of aerobic dance on vital capacity among the college male students. Thirty students (n = 30) were randomly selected as subjects and age were ranged between 18 and 22 years. The selected subjects were randomly assigned into two equal groups such as a training group (TG) and the control group (CG) for the strengths of fifteen (n = 15) each. The training group underwent respective aerobic dance training program for twelve weeks duration for three days per week and a session on each day. The CG did not give any special training programme apart from their regular activities. Vital Capacity was taken as a criterion variable for the present study and the instrument were used to measure the vital capacity was Wet Spiro-meter. Analysis of covariance (ANCOVA) was used to analyze the collected data. The results revealed that the aerobic dance training was made significant improvement ($p \leq 0.05$) in vital capacity of the selected subjects. The level of confidence was fixed at 0.05 in all cases.

KEY WORDS: Aerobic dance training, vital capacity, college male students.

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INTRODUCTION

The importance of physical programs is linked to a higher quality of life as well as academic achievements (Enright, 2006). It is well documented that regular physical activity in childhood and adolescence improve strength & endurance, health build, healthy bones & muscles, hip control weight, reduce anxiety and stress increases self esteem and may improve cardio respiratory function. Physical fitness is recognized as an important component of health (Limb *et al*, 1998 & Twisk *et al*, 2000).

Aerobic dance defined as continuous movement exercise, loco-motor movement and dance steps performed to music. The variety and style of the movement and the musical accompaniment provide as many forms of aerobic dance program as there are interests and tastes of the people performing them. The aerobic dance workout can be divided into 4 phases: warm - up, skill review, aerobics and cool down. Each phase has its own purpose without which the workout is incomplete (Quin, 2007). Each phase of the program is necessary if aerobic dance is to provide the desired benefits. The best reason of starting aerobic dancing is that it is fun, one can tailor make one's workout to music one likes, with friends one enjoys. But aerobic dance also affords each participant the benefits of all components of fitness, including flexibility, strength, cardiovascular endurance, agility, balance, and coordination (Jaspal Singh and Kirpal Singh, 2012).

Vital Capacity is the volume of the air that can be expired rapidly with a maximum force following a maximum inspiration. The amount of air that can breathe in and out with each breath is approximately 1/2 liter (Zahra, 2013 and Shinde, 2013).

MATERIALS AND METHODS

The purpose of this investigation was to find out the impact of aerobic dance program on Vital Capacity among the college male students. Thirty students (n = 30) were randomly selected as subjects for this study from the Department of Education at Annamalai University, Tamil Nadu. The age of the selected subjects were ranged between 18 and 22 years. The total strength was further divided into two equal groups of fifteen (n = 15) each in strength. The first group was named training group (TG) and they underwent a systematic training program of aerobic dance for twelve weeks duration. The second group was named as control group (CG) and they did not expose any special training programme apart from their curriculum. The training period was

restricted to one session per day for three days in a week for twelve weeks duration. All the subjects were present for more than 94% of the total training sessions. The dependent variable of Vital Capacity was taken and it was measured by using the instrument of a Wet Spiro-meter. The data were collected two days prior to the training and immediately after the training program. The collected data were statistically examined by analysis of covariance (ANCOVA). The confidence interval was fixed at 0.05 levels, which is considered; appropriate enough for the present study.

Table I

Training Schedule

Weeks	Training Programme	Duration	Sets	Recovery time
1st & 2nd	Warming up	10 Min.		
	Aerobic Dance	10 Min.	1	
3rd & 4th	Warming up	10 Min.		
	Aerobic Dance	15 Min.	1	
5th & 6th	Warming up	10 Min.		
	Aerobic Dance	10 Min.	2	5 Min.
7th, 8th & 9th	Warming up	10 Min.		
	Aerobic Dance	15 Min.	2	6 Min.
10th, 11th & 12th	Warming up	10 Min.		
	Aerobic Dance	20 Min.	2	8 Min.

RESULTS AND DISCUSSION

Table II

Analysis of covariance for Vital Capacity of experimental group and the control group

Test		Experimental Group	Control Group	SOV	SS	df	MS	*F*
Pre test	Mean	3866.66	3775.33	B	62563.33	1	62563	2.01
	SD	164.38	187.48	W	870456.6	28	31087	
Post test	Mean	4083.33	3784.33	B	670507	1	670507	20.34*
	SD	168.67	193.55	W	922826	28	32958	
Adjusted Post test	Mean	4037.67	3829.99	B	301794	1	301794	154.8*
				W	52643	27	1949	

*Significant F = (df 1, 28) (0.05) = 4.20 & (df 1, 27) (0.05) = 4.21; ($p \leq 0.05$).

The analysis of covariance on vital capacity among experimental and control group were described in table I. The mean values of the vital capacity of training and control groups were 3866.66 and 3775.33. The obtained *'F'* value of 2.01 was lesser than the table value of 4.20, there was insignificant among the groups in pre test result of vital capacity. The post test means of the groups were 4083.33and 3784.33 respectively, and the obtained '*F*' value of 20.34 was greater than the table value, and hence there was a significant difference in vital capacity between the training and the control groups in vital capacity among the male college students. The obtained adjusted post test '*F*' value also greater than the table value of 4.21 for df 1 and 27. The pre, post and the adjusted post test mean values of the experimental group and the control groups on vital capacity were graphically represented in the Figure 1.

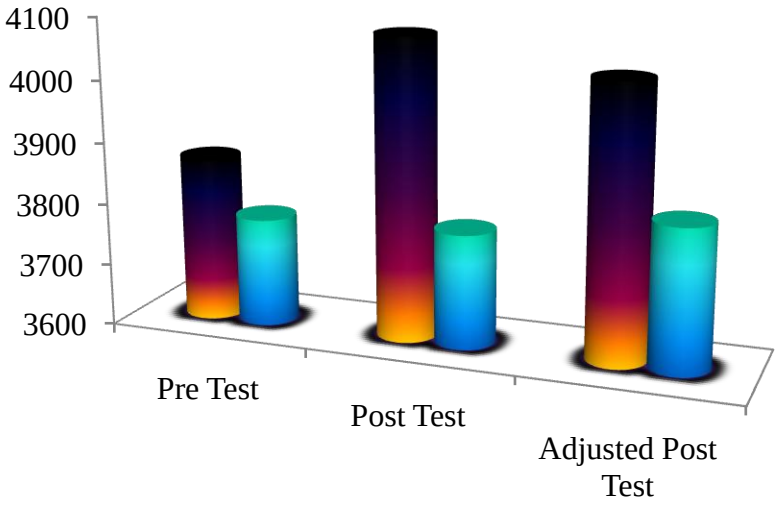

Figure 1: The pre, post and adjusted post test mean values of experimental group and control group on Vital Capacity

The result of the present study pointed out that there was a significant difference in vital capacity due to twelve weeks of aerobic dance programme among the college male students. Sinku (2012) was conducted a study on aerobic dance among the sedentary students and reached the conclusion that, the aerobic dance is one of the best methods for improving the vital capacity. Jaspal and Kirpal (2012), Ahsan *et a*.(2013), Fatima *et. al.* (2013) also reached the conclusion of positive improvement in vital capacity among the college students after the systematic practice of aerobic dance program. These studies are supportive result of the present investigation and we can see the influence of aerobic dance in vital capacity.

CONCLUSION

The result of the study revealed that the training group has significant improvement in vital capacity among the college male students after the systematic aerobic dance training protocol. It was also concluded that the aerobic dance is one of the best training methods for improving the vital capacity as well as the physical fitness for young men.

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