



## **AEROBIC DANCE TRAINING'S IMPACT ON COLLEGE MEN'S PHYSICAL EFFICIENCY INDEX**

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### **Abstract:**

The purpose of the study was to find out the effects of aerobic dance training on physical efficiency index among college men. To achieve the purpose of the present study, sixty college men from Salem, Tamilnadu, India were chosen as the subjects was selected as subjects at random and their age ranged from 18 to 25 years. The study was formulated as a true random group design, consisting of a pre-test and post-test. The subjects (N=60) were randomly assigned to three equal groups of twenty college men each. The group I underwent aerobic dance training with medium frequency, group II underwent aerobic dance training with high frequency and duration and group III acted as a control group.

The two experimental groups were participated the training for a period of twelve weeks to find out the outcome of the training packages and the control group did not participated in any training programme. Analysis of covariance (ANCOVA) was applied. Whenever the adjusted post-test means were found significant, the scheffe's post-hoc test was administer to find out the paired means difference. To test the obtained results on variables, level of significance 0.05 was chosen and considered as sufficient for the study. It was observed that the aerobic dance training with high frequency and duration group showed significant changes only on physical efficiency index than the aerobic dance training with medium frequency and duration group.

**Key Words:** Aerobic Dance Training, Physical Efficiency Index, College Men.

### **Introduction:**

Scientific exercise regimens involving running, walking, swimming, and bicycling were included in aerobics. The publication of the book coincided with a fortunate period in history when the general public's perceived desire for additional exercise was being fueled by growing frailty and inactivity. It rose to the top-seller list. Nearly all contemporary aerobics regimens, the majority of which are based on oxygen consumption equivalency, have their scientific foundation in Cooper's findings. Anaerobic activity, of which strength training and weight training are the most prominent examples, can be compared with aerobic exercise and fitness. The length and force of the muscular contractions involved in the two types of exercise, as well as how energy is produced within the muscle, vary.

Glycogen is initially broken down during aerobic exercise to create glucose, which is then broken down with the aid of oxygen to provide energy. When these carbs are not there, fat metabolism begins. The latter is a gradual process and results in a drop in performance. The phenomenon known to marathon runners as "hitting the wall" is largely caused by this progressive switch to fat as fuel. Contrarily, anaerobic exercise is a far less effective procedure that describes the beginning of exercise or any brief period of great effort during which the glycogen or sugar is consumed without oxygen. An inexperienced 400-meter sprinter may "hit the wall" before completing the entire distance when operating anaerobically (Bishop, 2002).

### **Methodology:**

The purpose of the study was to find out the effects of aerobic dance training on physical efficiency index among college men. To achieve the purpose of the present study, sixty college men from Salem, Tamilnadu, India were chosen as the subjects was selected as subjects at random and their age ranged from 18 to 25 years. The study was formulated as a true random group design, consisting of a pre-test and post-test. The subjects (N=60) were randomly assigned to three equal groups of twenty college men each. The group I underwent aerobic dance training with medium frequency, group II underwent aerobic dance training with high frequency and duration and group III acted as a control group.

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**Results:**

Table 1: Computation of Analysis of Covariance on Physical Efficiency Index

	ADTMFDG	ADTHFDG	CG	Source of Variance	Sum of Squares	Df	Means Squares	F-Ratio
Pre-Test Means	73.60	74.00	74.10	BG	2.800	2	1.400	0.37
				WG	212.600	57	3.730	
Post-Test Means	80.45	83.30	73.90	BG	929.233	2	464.617	91.02*
				WG	290.950	57	5.104	
Adjusted Post-Test Means	80.46	83.29	73.89	BG	928.962	2	464.481	89.51*
				WG	290.586	56	5.189	

Above table reveals that the indicated that the obtained 'F'-ratio for the pre-test means among the groups on physical efficiency index were 73.60 for experimental group – I, 74.00 for experimental group – II and 74.10 for control group. The obtained 'F'-ratio 0.37 was lesser than the table 'F'-ratio 3.15. Hence the pre-test mean 'F'-ratio was insignificant at 0.05 level of confidence for the degree of freedom 2 and 57. The post-test means were 80.45 for experimental group – I, 83.30 for experimental group – II and 73.90 for control group. The obtained 'F'-ratio 91.02 was higher than the table 'F'-ratio 3.15. Hence the post-test mean 'F'-ratio was significant at 0.05 level of confidence for the degree of freedom 2 and 57. The adjusted post-test means were 80.46 for experimental group – I, 83.29 experimental group – II and 73.89 for control group. The obtained 'F'-ratio 89.51 was higher than the table 'F'-ratio 3.16. Hence the adjusted post-test mean 'F'-ratio was significant at 0.05 level of confidence for the degree of freedom 2 and 56. It was concluded that there was a significant mean difference among aerobic dance training with medium frequency and duration group, aerobic dance training with high frequency and duration group and control group, in developing physical efficiency index of the college men.

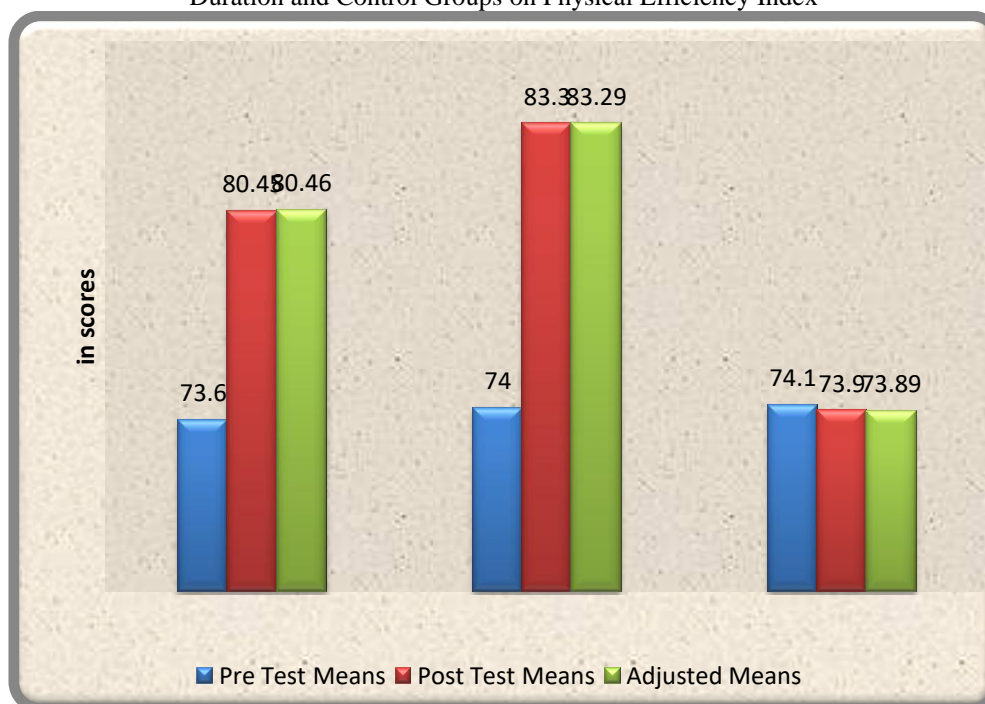
Table 2: The Scheffe's Test for the Differences between the Adjusted Post Test Means on Physical Efficiency Index

Adjusted Post-Test Means			Mean Difference	Required CI
ADTMFDG	ADTHFDG	CG		
80.46	83.29	---	2.83*	1.81
80.46	---	73.89	6.57*	
---	83.29	73.89	9.40*	

\* Significant at 0.05 level of confidence

Above shows the post hoc analysis obtained on adjusted post test means. The mean difference required for the confidential interval to be significant was 1.81. It was observed that the aerobic dance training with high frequency and duration group significantly improved physical efficiency index better than the aerobic dance training with medium frequency and duration and control group. The aerobic dance training with medium frequency and duration group significantly improved physical efficiency index better than the control group.

Figure 1: Adjusted Post Test Differences of the Aerobic Dance Training with Medium and High Frequency and Duration and Control Groups on Physical Efficiency Index



**Conclusion:**

It was observed that the aerobic dance training with high frequency and duration group showed significant changes only on physical efficiency index than the aerobic dance training with medium frequency and duration group.

**References:**

1. Aranga, P. & Kulothungan, P. (2011). Effect of Different Intensity Aerobic Exercise on Body Composition Variables among Middle Aged Men, *Recent Trends in Yoga and Physical Education*, 1, 276.
2. Baroni, B.M., Leal Junior. E.C. (2010). Aerobic capacity of male professional futsal players. *J Sports Med Phys Fitness*. 50(4):395-9.
3. Barrow, H. M., & Mc, Gee. (1979). *A Practical Approach to Measurement in Physical Education*, New York: The C.V. Mosby company.
4. Cooper, K.H. (1969). *New Aerobics*. New York: Bantam Books, p.30.
5. Cooper, K.H. (1985). *Aerobics Program For Total Well-Being: Exercise, Diet, And Emotional Balance*. New York: Bantam Books.
6. Gore, M.M., Bhogal, R.S., Kulkarni, D.D. & Bera, T.K. (2003). Effects of yoga and aerobics training on cardio respiratory functions in obese people. *Yoga Mimamsa*, Vol.XXXV, 1, 2: 35-53.
7. Henry, N. W., Michele, S.O. & Daniel, L. B. (1989). The Physiological Effects of Aerobic Dance. *Sports Medicine*. 8, 6, 335-345.
8. Holmerova, I., Machacova, K., Vankova, H, Veleta P, Jurasková B, Hrnčiariková D, Volicer L, Andel R. (2010). Effect of the Exercise Dance for Seniors (EXDASE) Program on Lower-Body Functioning Among Institutionalized Older Adults. *J Aging Health*. 22(1):106-19.