

Effect of aerobic dance training on endurance among university players

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■ ABSTRACT

The purpose of the study was to find out the effect of aerobic dance training on endurance among university players. To achieve this purpose of the study, thirty university women students were selected as subjects who were representing various teams of Sree Sankaracharya University of Sanskrit to participate in the Inter University Competition. The selected subjects were aged between 18 to 22 years. They were divided into two equal groups of fifteen each, Group I underwent aerobic dance training and Group II acted as control that did not participate in any special training apart from their regular curricular activities. The subjects were tested on selected criterion variable such as endurance prior to and immediately after the training period. The selected criterion variable such as endurance was determined through 8 minutes run and walk test. The analysis of covariance (ANCOVA) was used to find out the significant differences if any, between the experimental group and control group on selected criterion variable. In all the cases, 0.05 level of confidence was fixed to test the significance, which was considered as an appropriate. The result of the present study has revealed that there was a significant difference among the experimental and control group on endurance.

■ **KEY WORDS :** Training, Aerobic dance, Endurance, Women players

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Training and conditioning are the best known ways, to prepare the players for efficient performance and healthful living. Efficient performance is possible only through a carefully planned programme of progressive practice which will perfect the co-ordination, eliminate unnecessary movements and accomplish result at the expense of minimum energy as well as conditioning the muscle structure and the circulation to withstand without harming the intensive demands made upon them. Fitness is the ability to meet the demands of a physical task (Kirtani, 2003). Basic fitness can be classified in

four main components: Strength, Speed, Stamina and Flexibility. However, exercise scientists have identified nine components that comprise the definition of fitness: Strength, Power, Agility, Balance, Flexibility, Local Muscle Endurance, Strength Endurance and Co-ordination. All the nine elements of fitness Cardiac Respiratory qualities are the most important to develop as they enhance all the other components of the conditioning equation. Aerobic dance has blossomed into a sport for all to have fun while losing weight and keeping in shape. There are varied forms of aerobics including

low-impact, swim and other water aerobics is popular. Dance is still the predominant form and may be inspired by ballet, country line dancing, salsa or even hip-hop.

Aerobics is a form of physical exercise that combines rhythmic aerobic exercise with stretching and strength training routines with the goal of improving all elements of fitness (flexibility, muscular strength, and cardio-vascular fitness) (Cooper, 1983). It is usually performed to music and may be practiced in a group setting led by an instructor (fitness professional), although it can be done solo and without musical accompaniment. With the goal of preventing illness and promoting physical fitness, practitioners perform various routines comprising a number of different dance-like exercises. Formal aerobics classes are divided into different levels of intensity and complexity. Aerobics classes may allow participants to select their level of participation according to their fitness level (Jaywant, 2013; Mistiaen, 2012 and Shahana *et al.*, 2010). Many gyms offer a variety of aerobic classes. Each class is designed for a certain level of experience and taught by a certified instructor with a specialty area related to their particular class. Essentially an hour's workout set to music, a typical aerobics program begins with 5-10 minutes of warm-ups and stretching, peaks with 20-30 minutes of target heart range dance, can include 20 minutes of a muscle stretching floor programme known as body sculpting, and ends with 5-10 minutes of cool-down and more stretching. Programs typically run three to four times a week. The benefits of aerobics include increased cardiopulmonary efficiency, strengthened heart and lungs, improved circulation, lowered cholesterol levels, and stress and anxiety reduction. But it is a strenuous form of exercise, and thorough preparation, wise choice of routines, proper equipment, and consideration of floor surfaces are essential to avoid injury. It's a good idea to see a doctor of podiatric medicine specializing in sports medicine before beginning an aerobics regimen. The podiatrist will perform a biomechanical or gait analysis to assess your risk of injury.

■ METHODOLOGY

In the present study all the students were representing university teams of Sree Sankaracharya University of Sanskrit were considered as population for the study. A representative sample of 30 university women players in the age of 18-22 years was chosen as sample for the study. The selected participants were divided into two groups. Group I underwent aerobic dance training and group II act as control group. The experimental groups underwent eight weeks of training in their particular workout. For this study dependent variable is endurance. The data were collected at prior and immediately after the training period. Analysis of covariance (ANCOVA) was applied for analyze the data. In all cases, 0.05 level was used to test this significance (Clarke and Clarke, 1982).

■ OBSERVATIONS AND DISCUSSION

The findings of the present study as well as relevant discussion have been presented under following heads :

Findings :

The statistical analysis comparing the initial and final means of endurance due to aerobic dance training have been presented in Table 1.

Table 1 shows the analyzed data of endurance. The endurance pre means were 1550.63 for the aerobic dance training group and 1562.31 for the control group. The resultant 'F' ratio of 1.06 was not significant at .05 levels indicating that the two groups were no significant variation. The post-test means were 1695.84 for the aerobic dance training group and 1558.74 for the control group. The resultant 'F' ratio of 3.75 at .05 level indicating that was a significant difference. The difference between the adjusted post-test means of 1700.14 for the aerobic dance training group and 1560.02 for the control group yield on 'F' ratio 30.29 which was significant at .05 level. The results of the study indicate that there is a significant difference among aerobic dance training and control groups on the endurance.

Table 1 : Computation of analysis of covariance on endurance

Test	Aerobic dance training	Control group	F
Pre test	1550.63	1562.31	1.06
Post test	1695.84	1558.74	3.75*
Adjusted	1700.14	1560.02	30.29*



Conclusion :

The results of the study proved that there were significant differences between control group and aerobic dance training group. The eight weeks of experimental treatment significantly influence on endurance in university players. The above results are supported by Jaywant, Mistiaen and others and Shahana, Usha and Hasrani.

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