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Effect of different aerobic training programme on OBESE women

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Abstract
Aerobic exercises builds stamina for sports and it is also the most important form of exercise for health, since it increases the efficiency of heart, circulation and muscles. In step aerobic exercises the heart rate increases substantially, but never reaches its maximum level. Obesity is usually defined in terms of excessive quantities of total body fat. It is a metabolic abnormality caused by excessive calorie intake. It refers to the condition of having excessive amount of total body fat i.e. above 20% for men and above 30% for women. Obesity leads to a) Diabetes b) Chronic heart diseases c) Deterioration of brain functions d) Acceleration of aging process and e) Deteriorated musculoskeletal system. Total of thirty obese women who works in various places of Chidambaram were selected at random for this study. They belonged to the age group of 25 to 30 years. The subjects were assigned to three groups (Group A, B, and C) with each group comprising of ten subjects. The results of this study shows that the varied aerobic exercises, namely aerobic and step aerobic exercises significantly improved the Vital Capacity of the obese women where as there is no significant decrease in their Resting Heart Rate.

Keywords: Aerobic Exercises, Floor Exercises, Step Exercises and Obese women

1. Introduction
Aerobic refers to a variety of exercises that stimulates heart and lung activity for a time period sufficiently long to produce beneficial changes in the body (Cooper, 1970). Aerobic is a system of exercises designed to promote the supply and use of oxygen in the body. The step aerobics, developed by Gin Miller is a trend that took the aerobics industry by storm. This extremely popular style involves stepping up and down from a platform 15 to 30 centimeters (6 to 12 inches) high while performing different step combinations.

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2. Statement of the Problem
The purpose of the study is to make a scientific research to assess the effect of varied aerobic training programme on cardio respiratory function among obese women working in different places of Chidambaram.

3. Methodology
Total of thirty obese women who works in various places of Chidambaram were selected at random for this study. They belonged to the age group of 25 to 30 years. The subjects were assigned to three groups (Group A, B, and C) with each group comprising of ten subjects.

4. Training Programme
4.1 Floor Aerobics Group
Group A was exposed to selected floor aerobic exercises namely,

- Marching
- Touch Out
- Step Touch
- Double Step Touch
- Grapevine
- Cross Over Step
- Jump on the Spot
- Ham Curl
- Front Kick
- Knee and Arm Lift

4.2 Step Aerobics Group
Group B was exposed to selected step aerobic exercises namely,

- 'V' Step
- Leg Curl
- Toe Tap
- Front Kick
- Slice
- 90 Degree Turn
- Side Kick
- 'V' Step with Flexed Knees
- Straddle Down
- Trunk twist with Extended
- Arms

Group C served as control group and was restricted from participating in the training programme. To assess the effect, 12 weeks varied aerobic training programme, was given. Dependent variables, vital capacity and Resting Heart Rate were chosen for this study. The experimental design used in this study is pretest, posttest randomized group design. Here, the groups are randomly formed but all groups are given a pretest as well as posttest.

Table 1: Computation of Analysis of Covariance of Pre and Post Test Scores on Vital Capacity

Source of variance	Df	SSx	SSy	SSxy	MSy.x	SDy.x	F-ratio
Between sets	2	0.5	3.3	1.6	0.8	0.2	18.90*
Within sets	26	3.1	3.2	1.1	0.042		

Table 2: Computation of Analysis of Covariance of Pre and Post Test Scores on Resting Heart Rate

Source of variance	Df	SSx	SSy	SSxy	MSy.x	SDy.x	F-ratio
Between sets	2	2.1	2.6	1.7	0.8	o.8	1.2
Within sets	26	125.4	86.1	18.6	0.7		

5. Results

The obtained results on vital capacity and resting heart rate were statistically analysed using Analysis of Covariance (ANCOVA) and are presented in Table 1 & 2. The obtained F-ratio of 18.90* for vital capacity was significantly higher than the required table value of 3.37 at 0.05 level of significance. The obtained F-ratio of 1. 2 for resting heart rate was less than the required table value of 3.37 at 0.05 level of significance, hence it has no significant difference.

6. Conclusions

The results of this study shows that the varied aerobic exercises, namely aerobic and step aerobic exercises significantly improved the Vital Capacity of the obese women where as there is no significant decrease in their Resting Heart Rate.

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