Effect of Aerobic Training on Body Mass Index on Sedentary Obese Women

ABSTRACT
The purpose of this study is to determine the Effect of Aerobic Training on Body Mass Index on Sedentary Obese Women. For the purpose of the study the investigator randomly selected 30 women and divided in the two groups. 15 subjects were assigned to an experimental group and 15 subjects to control group. The experimental group had been in Physical training programme three days in a week for a period of 8 weeks. The control group did not involve in any fitness program or training program. The aerobic training includes walking and jogging. For the study Body Mass Index were taken before and after the eight weeks of training program. To compare the mean difference between initial and final scores of experimental and control group dependent ‘t’ test was employed. Body Mass Index The following equation was used and calculated body mass index. BMI Kg/M(square) =Weight in kg/Height in m sq The condition of being obese; increased body weight caused by excessive accumulation of fat. The BMI divides the obesity into three classes: 1. Moderate = 30.0-34.9 2. Severe = 35.0-39.9 3. Very Severe = 40.0 and above.

Keywords
Aerobic Training, Body Mass Index, Sedentary Obese

Theme: Fitness and Wellness through Physical Education.
Sub-Theme: Geriatric Fitness

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Body Mass Index
The following equation was used and calculated body mass index.

\[ \text{BMI} = \frac{\text{Weight in kg}}{\text{Height in m}^2} \]

The condition of being obese; increased body weight caused by excessive accumulation of fat.

The BMI divides the obesity into three classes:
1. Moderate = 30.0-34.9
2. Severe = 35.0-39.9
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Schedule of Walking and Jogging Training Programme

<table>
<thead>
<tr>
<th>WEEK</th>
<th>TRAINING IN MINUTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>First and Second week</td>
<td>5 Minutes Walking and 5 Minutes Jogging</td>
</tr>
<tr>
<td>2-4 Weeks</td>
<td>10 Minutes Walking and 10 Minutes Jogging</td>
</tr>
</tbody>
</table>

Results

<table>
<thead>
<tr>
<th>Groups</th>
<th>No.</th>
<th>Initial Mean</th>
<th>Final Mean</th>
<th>Mean Difference</th>
<th>S.E.M</th>
<th>t' ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXP.</td>
<td>15</td>
<td>31.8060</td>
<td>31.0960</td>
<td>0.7100</td>
<td>0.0809</td>
<td>8.770</td>
</tr>
<tr>
<td>CONT.</td>
<td>15</td>
<td>31.6153</td>
<td>31.6940</td>
<td>0.0787</td>
<td>0.2947</td>
<td>2.669</td>
</tr>
</tbody>
</table>

‘t’ value needed for significance at .01 level with 14 degrees of freedom was 2.977.

Table reveals that in the case of the experimental group significant changes were noticed in Body Mass Index following 8 weeks of aerobic training. Since the ‘t’ value obtained for Body Mass Index was 8.776, which is higher than the required table value, i.e. 2.977. In the case of control group there were no significant changes.

CONCLUSIONS
The results of the study seems to permitted the following conclusions:
1. Participation in eight weeks of aerobic training resulted in improvement in Body Mass Index.

RECOMMENDATIONS
In the light of conclusions drawn, the following recommendations are made:
1. Similar studies may be under taken for different age groups and sex other than this study.
2. Similar longitudinal studies may be undertaken by increasing the duration and intensity of training program.

REFERENCE