Effect of Yogic Exercises on Selected Physical Fitness Components of Female Athletes

Mr. Pruthvi Raj G D* Dr S K Manjunatha**
*Research Scholar, Department of Physical Education Bangalore University, Bangalore
**Assistant Professor Department of Physical Education, College of Horticultural, Mudigere.
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Abstract

Good health and freedom from disease is the best achievement of life. Modern medicine has made tremendous progress in recent years. Obesity is a chronic state of being overweight. Now a day’s obesity is problem of every person. Over two thirds of adults are overweight and nearly one quarter obese. Children and adolescents are becoming increasingly overweight and obese. Overweight imposes unnecessary strain on the various bodily systems especially the circulatory, respiratory and eliminative systems.

The purpose of the study was to determine the effect of six week Yogic training on selected physical fitness components on adolescent girls. 30 subjects (adolescent female) Thrissur district, Kerala in the age group of 17 to 25yrs. Were selected randomly as subjects for the study. The subjects were randomly assigned as experimental and Control groups each group consisted of 15 subjects. The requirements of the study was explained to all the subjects. All the subject voluntarily agreed to undergo the testing and training programmes. The study was formulated as pre post test pre experimental design. The Result of the study has shown that physical fitness components of female adolescents who practiced yoga does not show any significant difference. The study shows no significant difference on the components like the speed, flexibility and abdominal strength in the subjects. There is no significant decrease in weight of the subjects after the yogic practice.

INTRODUCTION

Good health and freedom from disease is the best achievement of life. Modern medicine has made tremendous progress in recent years. Obesity is a chronic state of being overweight. Now a day’s obesity is problem of every person. Over two thirds of adults are overweight and nearly one quarter obese. Children and adolescents are becoming increasingly overweight and obese. Overweight imposes unnecessary strain on the various bodily systems especially the circulatory, respiratory and eliminative systems.

Statement of the Problem

The purpose of the study was to determine the effect of six week Yogic training on selected physical fitness components on adolescent girls.

Delimitation

1. The study was delimited to 30 girls of seventeen to Twenty years old age.
2. The study was delimited to Thrissur district.
3. Only participants who attended the Yoga session for all alternate days selected as the subjects.
4. The follow up period was limited to two months.
5. The study was further delimited to selected physical fitness components, that is height, weight, speed, abdominal strength and flexibility.

Limitation

1. All subjects were volunteers. Dealing with volunteers often makes it hard to choose a representative sample of the entire society of interest.
Hypothesis
It was hypothesized that various Yogic intervention strategies will significantly improve the physical parameters of adolescent female.

Selection of Subjects
30 subjects (adolescent female) Thrissur district, Kerala in the age group of 17 to 25 yrs. were selected randomly as subjects for the study. The subjects were randomly assigned as experimental and Control groups each group consisted of 15 subjects. The requirements of the study was explained to all the subjects. All the subject voluntarily agreed to undergo the testing and training programmes. The study was formulated as pre post test pre experimental design.

Selection of variables
Physical Variables
1. Abdominal strength
2. Flexibility
3. Speed
4. Height
5. Weight

Physiological Variables
Resting Heart Rate

Methodology
1. The study was formulated as a true random group design. Consisting of a pre test and post test the subjects (n=30) were randomly assigned to two equal groups of fifteen students each.
2. The groups were assigned as experimental group and control group respectively.
3. Pretest was conducted for all the subjects on selected Motor Ability Physiological Variables such as Flexibility, Muscular Strength, Speed, height, weight, Resting Pulse Rate.
4. The experimental groups participated in their respective Yogic Practices for a period of 6 weeks.
5. The post test was conducted on the above said dependent variables after a period of 6 weeks in the respective treatments.

Test Administration
1. Flexibility (sit and reach test)
2. Muscular strength (sit ups)
3. Speed (60 meters dash)
4. Body mass index (BMI)
5. Weight-Weighing machine
6. Height-Stadiometer
7. Resting heart rate-

Analysis of Data and the Result of the Study
‘t’ test  The level of significance to test t-ratio obtained by the analysis of variance was fixed at 0.05 level of confidence
RESULTS AND DISCUSSION

Table 1: DESCRIPTIVE STATISTICS OF PRE–TEST AND POST-TEST OF EXPERIMENTAL GROUP AND CONTROL GROUP IN HEIGHT

<table>
<thead>
<tr>
<th>Group</th>
<th>Test</th>
<th>No.</th>
<th>Mean</th>
<th>SD</th>
<th>‘t’ ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>Pre-test</td>
<td>15</td>
<td>1.57</td>
<td>4.51</td>
<td>0.041</td>
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<tr>
<td>Control</td>
<td>Post test</td>
<td></td>
<td>1.57</td>
<td>4.51</td>
<td></td>
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</tbody>
</table>

Table 2: DESCRIPTIVE STATISTICS OF PRE–TEST AND POST-TEST OF EXPERIMENTAL GROUP AND CONTROL GROUP IN WEIGHT

<table>
<thead>
<tr>
<th>Group</th>
<th>Test</th>
<th>No.</th>
<th>Mean</th>
<th>SD</th>
<th>‘t’ ratio</th>
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<tr>
<td>Experimental</td>
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<td>15</td>
<td>54.93</td>
<td>24.02</td>
<td>0.484</td>
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<td></td>
<td>Post test</td>
<td></td>
<td>52.27</td>
<td>22.8</td>
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<tr>
<td>Control</td>
<td>Pre-test</td>
<td>15</td>
<td>53.57</td>
<td>23.649</td>
<td>0.4952</td>
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<tr>
<td></td>
<td>Post test</td>
<td></td>
<td>53.73</td>
<td>23.67</td>
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Table 3: DESCRIPTIVE STATISTICS OF PRE–TEST AND POST-TEST OF EXPERIMENTAL GROUP AND CONTROL GROUP IN SIT-UPS

<table>
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<th>Group</th>
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<th>SD</th>
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<td>15</td>
<td>10.2</td>
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<td></td>
<td>Post test</td>
<td></td>
<td>16.7</td>
<td>5.86</td>
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Table 4: DESCRIPTIVE STATISTICS OF PRE–TEST AND POST-TEST OF EXPERIMENTAL GROUP AND CONTROL GROUP IN SIT ANSD REACH

<table>
<thead>
<tr>
<th></th>
<th>No.</th>
<th>Mean</th>
<th>SD</th>
<th>‘t’ ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Experimental</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td>Pre-test</td>
<td>15</td>
<td>9.66</td>
<td>4.76</td>
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<tr>
<td></td>
<td>Post test</td>
<td></td>
<td>13.1</td>
<td>4.8</td>
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<tr>
<td><strong>Control group</strong></td>
<td>Pre-test</td>
<td>15</td>
<td>9.27</td>
<td>5.571</td>
</tr>
</tbody>
</table>

Table 5: DESCRIPTIVE STATISTICS OF PRE–TEST AND POST-TEST OF EXPERIMENTAL GROUP AND CONTROL GROUP IN 30 M DASH

<table>
<thead>
<tr>
<th></th>
<th>No.</th>
<th>Mean</th>
<th>SD</th>
<th>‘t’ ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Experimental</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td>Pre-test</td>
<td>15</td>
<td>6.82</td>
<td>3.19</td>
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<td></td>
<td>Post test</td>
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<td>6.31</td>
<td>3.26</td>
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<tr>
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<td>Pre-test</td>
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<td>6.82</td>
<td>3.17</td>
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<tr>
<td></td>
<td>Post test</td>
<td></td>
<td>6.98</td>
<td>3.12</td>
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Conclusion
1. The Result of the study has shown that physical fitness components of female adolescents who practiced yoga does not show any significant difference.
2. The study shows no significant difference on the components like the speed, flexibility and abdominal strength in the subjects.
3. There is no significant decrease in weight of the subjects after the yogic practice.
Reference
2) Alderman (1974) psychological behavior in sport Toronto, w b saunder company.153