The impact of specific asana on the body mass index of 12 to 16 years school children

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Abstract
The main aim of this study is to find the effect of Specific asanas on the Body mass Index of 12 to 16 years school children. Considering the mentioned objective, 40 students of R.V.S.R. School Gangavati, Karnataka State are selected as cases for this study and they are randomly divided into training group and controlling group. The first group, participated in Specific asanas training process that continued 8 weeks, while; the latter group did not participate in any exercise programs and continued with their daily activities.

Keywords: Specific asanas, body mass index

Introduction
Yoga is one such alternative form of physical activity that is used mainly for the purpose of health promotion. Yoga comprises mainly body postures (asanas), breathing exercises (pranayama), and meditation (dhyana). Yoga is also gaining increasing popularity as a therapeutic measure. Some 80% of persons practicing yoga in the US (more than 16 million people) reported that they had taken up the practice with the explicit goal of improving their health. In this setting, the hope to maintain body mass index, was one of the most important reasons for taking up yoga. Although initial evidence for the effectiveness of yoga on weight control and improved body composition from surveys is now available. Current researches have also suggested that with the physical activity including specific asanas, an improvement in Body Mass Index will be experienced.

Meaning of Specific asana
An asana is a body posture, originally a sitting pose for meditation, and later in hatha yoga and modern yoga, adding reclining, standing, inverted, twisting, and balancing poses to the meditation seats. The Yoga Sutras of Patanjali define "asana" as "[a position that] is steady and comfortable". Patanjali mentions the ability to sit for extended periods as one of the eight limbs of his system. Asanas are also called yoga poses or yoga postures in English.

Meaning of Body Mass Index
The height and weight of an individual ratio squared it is used as a measure of body composition.

The aim of this study
The aim of this study is to find the effect of 8 weeks of Specific Asanas on the Body Mass Index of 12 to 16 years school children.

Subjects and Methods
In order to gather the required data, 40 students between 12 to 16 years old of Gangavati are selected. After calls in all R.V.S.R. School Gangavati, Karnataka State, some families have accepted to participate in the study. The selected cases are divided into two groups (20 for each) which are training and controlling groups. The demographic characteristics of the Subjects are presented in Table. The results of t-test have shown that the two groups have homogeneous age, height, body mass and body mass index (BMI).
Table 1: Analysis of mean Standard deviation and ‘t’- value for Body mass index among control and experimental group of specific asanas training group

<table>
<thead>
<tr>
<th>Variable</th>
<th>Group</th>
<th>No</th>
<th>Mean Pre test</th>
<th>Mean Post test</th>
<th>Std. deviation Pre test</th>
<th>Std. deviation Post test</th>
<th>Df</th>
<th>t-value</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMI</td>
<td>Control</td>
<td>20</td>
<td>18.23</td>
<td>16.87</td>
<td>3.97</td>
<td>2.69</td>
<td>19</td>
<td>2.903</td>
<td>.009</td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td>20</td>
<td>18.89</td>
<td>17.05</td>
<td>3.99</td>
<td>2.34</td>
<td>19</td>
<td>3.914</td>
<td>.001</td>
</tr>
</tbody>
</table>

Significant at 0.05 level, df=19, 't' 0.05=2.09

From the above table it is clear that there was a significant difference in Body mass index between pre-test and post-test among Experimental group of sports persons as calculated t-value 3.91 > table value 2.09 at 0.05 level, in control group also shows there was slight significance in Body mass index Pre-test and post-test among control as calculated t-value 2.90>table value 2.09 at 0.05 group of specific asanas training group.

Fig 1: Bar graph representation of the mean values of Body mass index of the Control and Experimental groups in pre-test and post-test of specific asanas training group

Discussion

Based on the findings of this study, 8 weeks of specific asanas improves the Body Mass Index of 12 to 16 years school children. This study also confirms the findings of the effect of specific asanas on these Body Mass Index measurements were conducted 8 weeks after the experiment concluded. The experimental group and control group showed significant differences in Body Mass Index. Therefore, the results of this study suggest that specific asanas is effective for the improvement of the Body Mass Index, and this asanas can help maintain the physical fitness. However, this study has some limitations: The research subjects included only school children, and the experiment was implemented using only specific asanas. Therefore, Body mass Index seem to be a heritable trait. Although it may be increased by some asanas, this change is not noticeable. This fact can be the result of a slight change in the Body Mass Index of the students after specific asanas.

Results and Conclusion

This study indicates that that there was a significant difference in Body mass index between pre-test and post-test among Experimental group of sports persons as calculated t-value 3.91 > table value 2.09 at 0.05 level, in control group also shows there was slight significance in Body mass index Pre-test and post-test among control as calculated t-value 2.90>table value 2.09 at 0.05 group of specific asanas training group. According to the obtained results, it is concluded that, specific asanas increases the Body Mass Index of 12 to 16 years school children.

References