The effect of yoga and physical exercise on body fat variables of rural and urban secondary school students of Vijayapur districts in Karnataka

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Abstract
The purpose of the study was intended to assess the Effect of Yogic and Physical Exercises and Rural and Urban on Fat content of Secondary students for this purpose hundred fifty students studying in various classes of Government high school Nagathan and Sanganbasaveshawar residential school of Vijayapur in Karnataka state in age group of 14–16 years were selected. They were divided into three equal groups, each group consist of 100 subjects, in which group belong to Rural and Urban underwent yoga practices and physical exercises and group –III acted as control group who were not allowed to participated and receive any special treatment apart from their regular curriculum classes’ The training period for this study was six days a week for twelve weeks the before and after the training period, the subjects were tested for Body fat. The analysis of covariance (ANCOVA) was applied to find out which group has produced better results, whenever “F” ratio for adjusted test was found to be significant for adjusted post-test means Scheffe’s test was followed, as a post hoc to determine which of the paired means differ significantly. It was drawn conclusions that after the training of yoga and physical exercise both training has decreased body fat, but significant decreases has found among the Rural students comparing their counterpart Urban group.

Keywords: physical exercise, Rural and Urban, body fat

Introduction
Yoga is the art and science of maintaining physical and mental wellbeing that has its origin in India, is among the most ancient yet vibrant living traditions that is getting increasingly popular today. A potent stress buster, yoga is an instrument of self-evolvement and enlighten, through physical and mental well-being. Math-dimension it enhances the quality of our lives at so many levels. One aspect of yoga’s benefits is to explore the bond between health and beauty.

The word Yoga derived from Sanskrit word ‘‘YUJ’’ meaning to yoke, join or unite. This implies joining or integrating all aspects of the individual body with mind with soul- to achieve a happy, balanced and useful life, and spiritually, uniting the individual with the supreme.

Physical exercise in any organised activity that involves continuous participation and effects on whole body. Exercise occupies a leading role in keeping a person fit. It will be quite difficult to adjunct one’s life in terms on stress, diet, and sleep and so on without proper exercise.

Regular practices of asana maintain the physical body in an optimum condition and promote health even in an unhealthy body. Through asana practice, the dormant energy potential is released and experienced as increased confidence in all areas of life, yogasna have a deeper significance value in the development of the physical, mental, and spiritual personality, whereas pure exercise only have physical effect on muscles and bones

Physical exercises are performed quickly and with a lot of heavy breathing, yogasna are performed slowly with relaxation and concentration. The benefits of various yoga techniques have been professed to improve body muscular strength, performance, stress reduction, attainment of inner peace and self-realization

Schools are dynamic setting for promoting health and wellness through various correlated
areas such as physical education and sports. There is a growing awareness that the health and psycho-social wellbeing of young children is of paramount importance and schools can provide a strategic means of children’s health, self-esteem, life skills and behaviour. The yoga and physical exercise are the means to notice all round and harmonious development among school students in the modern society, hence scholar made an attempt explore the “The Effect of Yoga and Physical Exercise on Body fat variables of Rural and Urban Secondary School Students” The present study was carried out in the background of the experimental method.

Hypothesis
1. There would be significant effect of yoga and physical exercises training on improvement of Body fat variables of Rural and Urban secondary school students.
2. The training of Physical Exercises leads and develops better body fat comparing to yoga training experiment group of Urban and Rural
3. The is no significant difference of yoga and Physical Exercise training in improving Body fat among demographical group students.

Objectives
To assess the effect of yoga and Physical exercises on cardiovascular endurance fitness variables of secondary school students.

Methodology: The purpose of the study was to find out effect of yogasana on selected physical variables such as flexibility and explosive power between yoga and Physical exercises group, to achieve the purpose of the study 300 students studying in the Government High School Nagthan and Sanganbasaveshwar residential school of Vijayapur district of Karnataka (Indi) has selected randomly as subject for the experiment, they were divided into two equal groups, each group consists of the 100 students. Experiment Group of Rural and Urban underwent Yogasan and physical; exercises training for six days per week for twelve weeks. Group III Acted as control that did not undergo any special training programme apart from their regular physical education classes programme. The following variables’ namely Body fat was selected as criterion variables. All the subjects of two groups were tested on selected depended variables at prior to and immediately after the training programme. The analyses of covariance were used to analyze the significant difference if any between the groups. The 0.05 level of confidence was fixed as the level of significance to test the ‘F’ ratio obtained by the analysis of covariance, which was considered as an appropriate.

Analysis of the data: The data collected prior and the after the experimental period on body fat variables of yoga and physical exercise group Belong to Urban and Rural were analyzes and presented in the following table –I

Influence of Demographical variables on fat content
The demographic variables represent the Rural and Urban factors of the subjects. They are the dominant factors which act as independent variable and have the ability to influence on the other factors of life. Therefore, understanding them has something to do with understanding the studied phenomenon holistically. In this connection to assess the influence of physical and yogic exercises and Demographical variables on Fat content secondary school students was studied.

Analyses and Interpretation
The data was collected on the yoga and Physical Exercises group belong to Rural and Urban after and before training session. The hypothesis was framed on the assumption that the rural demographical set would influence on physical and physiological condition of students, rural natural set up provides varied environment and make to expose to natural set up of the geographical condition, indigenous plays activities of rural provides opportunity to participate in natural and with restriction to the students, living condition and style also influence on the health condition of them school going students, whereas Urban condition and artificial life style determine and influence on physical, physiological and motor quality of the life, consumption of food and energy utilization changes metabolism process of the health, hence it was assumed that rural students would have lesser fat content among the experiment groups of yoga and physical exercises comparing to the urban experiment group.

Hence this study proved that how the Physical exercises and yogic exercises effect on the body fat. To determine the Impact of yogic and Physical exercise on Physiological variables such as body fat content of secondary school students for rural and urban has made to expose the 12 week training of Physical exercises and yoga and collected data was assessed through the Annacova and scheffe’s post hoc test.

Table 1: Showing the mean difference between Rural and Urban in their Body Fat Variables

<table>
<thead>
<tr>
<th>Sample Group</th>
<th>Demographical Variables</th>
<th>Mean</th>
<th>Sd</th>
<th>t-value</th>
<th>P</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rural</td>
<td>70.36</td>
<td>5.76</td>
<td>2.11</td>
<td>.011</td>
<td>Sig</td>
</tr>
<tr>
<td></td>
<td>Urban</td>
<td>71.79</td>
<td>6.00</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table showing the mean score of Fat of rural and urban students, mean score is 70.36 and 71.79 respectively, and calculated t’ value is 2.11, and calculated’ value is greater than table value of 0.05 level is significant. Means score express that rural students exhaled more oxygen compared to their counterpart group. It was hypothesised that rural students possess higher vital capacity comparing to urban school students, it has assumed that rural students would expose to natural condition, involvement in indigenous and Physical activities from their childhood, this involvement naturally resulted in developing theirs fitness and fat is going utilize properly and burn for the Physical activities, whereas urban students did not gets playgrounds and opportunity to participate in Physical activities due to urbanization and living style of urban setup. Hence, ’t’ value express that there is significant difference in their Shbody fat between rural and urban secondary school students, formulated hypothesis is accepted and null hypotheses is rejected

The graph- I–A-Showing the Mean and Sd value difference of Body fat Variable Between Rural and Urban samples of Secondary School Students
Conclusion

The physical exercises play a significant role in controlling and decreasing body fat contents, so modern science, technology and style of living has influenced health condition of school-going students, hence it research outcome states that physical education curriculum should be implemented and maintained effectively for the all-round and harmonious development of school personality.

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