

The effect of yoga, physical exercises and demographical factors on vital capacity variable of secondary school students

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Abstract

The purpose of the study was intended to assess the effect of yogic and physical exercises on Cardiovascular Endurance 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-I underwent yoga practices, group-II underwent 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 vital capacity. The analysis of covariance (ANCOVA) was applied to find out which group has better in performance, 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 improved in their vital capacity, but significant difference was noticed in vital capacity among the physical exercise and yoga group comparing their counterpart urban group.

Keywords: effect of yoga, physical exercises and demographical factors on vital capacity variable of secondary school students

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, yogasan 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 cardiovascular endurance Variables of 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 vital capacity variables between rural and urban students of secondary school
2. The training of physical exercises leads and develops better vital capacity variables between Rural and Urban of secondary school students
3. The is no significant difference of yoga and Physical exercise training in improving vital capacity variables between Rural and Urban of secondary school students

Objectives

1. To assess the effect of yoga and Physical exercises on vital capacity variables between rural and urban 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 Nagathan and Sanganbasaveshwar Residential school of Vijayapur district of Karnataka (India) has selected randomly as subject for the experiment, they were divided into two equal groups, each group consists of the 100 students. Group I and Group II 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 vital capacities were 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 leg explosive strength and agility of yoga and physical exercise group were analyzes and presented in the following table -I

Table 1: Showing the mean difference between rural and urban in their vital capacity variables:

Sample Group	Demographical Variables	Mean	Sd	t-value	P	Remarks
Between Sub Groups	Rural	770.16	120.55	2.350	.0022	Sig
	Urban	749.03	98.66			

Table-1 showing the mean score of vital capacity of rural and urban students, mean score is 770.16 and 749.03 respectively, and calculated' value is 2.350; it is greater than table value of 0.05 level of significant. It can be said that rural students exhaled more oxygen compared to their counterpart group. It was hypothesised that rural students possess higher vital capacity compared to urban school students, it is assumed that rural students would expose to natural condition and involvement in indigenous and Physical activities from their childhood. This involvement naturally develops their fitness, whereas urban students did not gets playgrounds and opportunity to participate in Physical activities due to living style of urban setup. Therefore, 't' value express that there is significant difference in their vital capacity between rural and urban secondary school students, formulated hypothesis is accepted and null hypotheses is rejected.

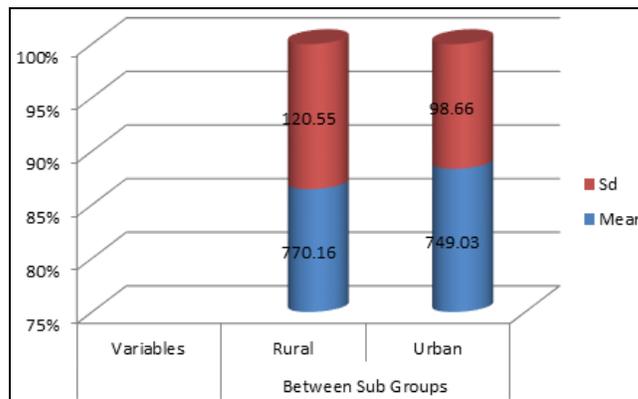


Fig 1: The graph-showing the Mean and Sd value difference of Vital Capacity between rural and urban samples of secondary school students

Table 2: Showing the mean difference between rural and urban in their vital capacity variables

Sample Group	Demographical Variables	Mean	Sd	t-value	P	Remarks
Between Sub Groups	Rural	70.36	5.76	2.11	.011	Sig
	Urban	71.79	6.00			

Table showing the mean score of vital capacity 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 posses 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 their 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 body fat between rural and urban secondary school students, formulated hypothesis is accepted and null hypotheses is rejected.

Conclusion

The practice of physical exercises were played significant role in developing vital capacity factors among the rural secondary school students, hence it was recommended to that the physical exercises and yoga should be part of curriculum at rural school system and must teach and practice effectively to notice the harmonious development of personify of students,

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