



Impact of Yoga on Selected Physiological Variables of School girls

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ABSTRACT

To achieve the purpose of the study twenty students studying in the government higher secondary school, Mayiladuthurai were selected as subjects. The age of the selected subjects ranged between 15 to 17 years. Experimental group was called yoga training group. yoga training group underwent one hour yoga training for six evening session per week for eight weeks. The data were collected prior and immediately after the training programme on Resting pulse rate and Breath hold time. All the tests were carried out with standardized procedure. The collected data of experimental group pre and post test was statistically analyzed by using mean, standard deviation, standard error and t-test. The level of significant was fixed at 0.01 level of confidence. The results of the study reveals that due to effect to eight weeks yoga training on selected physiological variable such as Breath hold time and resting pulse rate of the school girls has significantly altered.

KEYWORDS ; Yoga, Resting pulse rate and Breath hold time.

Introduction

Yoga is the ancient form of Exercise that has Contribute in the Holistic Living of individual in the most of natural and trusted way. Yogasanas are way of moving or holding the body in different position. It is Gentle and helps to relax both the body and mind. Yogasana is a way of life, an integrated system of education of the body, mind and the inner spirit. Yoga is union with all. Yoga strengthens your heart, lungs promote cardio vascular endurance, improve flexibility and reduce tension, and joint stiffness .Yoga can cure many illnesses. Yoga originated in India 4000years ago. The aim of yoga is union of the body, mind and spirit. Yoga practices including asanas, pranayama and meditation. Pranayama involves tackling of life energy through breathing discipline in order to sensitize the mind to the process of self-relaxation.It in increases activation of PNS(Para sympathetic nerves) and lead to mental relaxation. PNS was activated your heart rate decrease, blood and oxygen supply increase, digestion increase, range of motion of the joints increase etc. Breath hold time has been defined an individual's ability to hold the breath without inhaling or exhaling during the period of holding the breath. Resting pulse rate is a number of breaths take in a minute or number of inspiration and expiration in a minute.

Reviews

Chidambararaja(2015) conducted effect of yoga practice and aerobic exercise on resting pulse rate and blood pressure among school boys .Thirty school boys aged between 15 and 17 years were selected as subjects. They were divided into three groups equally. Group –I underwent yoga training and Group-II underwent aerobic exercise five days per week for 12 weeks. Group-III did not participate any special training programme. The subjects were tested on selected criterion variable such as resting pulse rate, flexibility, muscular endurance at prior and immediately after the training. All the tests were carried out with standardized procedure. ANCOVA used as statistical tool. Schfee's post hoc was used to find out which of the adjusted post test was differed significantly. Resting pulse rate was significantly decreased for both training group when compared to control group. Flexibility and muscular endurance were improved significantly for both training groups. The aerobic exercise group was better than yogic exercise group.

Manikandan (2013) evaluated effect of pranayama practice on selected physiological variables such as breath hold time and vital capacity among women players. Thirty university women players from various discipline from Annamalai university were selected as subjects. Their aged between 18 and 25 years were selected as subjects. They were divided into two groups equally. Group –I underwent pranayama training five days per week for eight weeks and .Group-II did not participate any special training programme. The subjects were tested on selected criterion variable such as breath hold time and vital capacity at prior and immediately after the training. All the tests were carried out with standardized procedure. ANCOVA used as statistical tool. It was concluded there was significant improvement on selected physiological variables such as breath hold time and vital capacity among women players due to training effect.

Sunil Rayat (2015) studied effect of yoga on selected physical and physiological variables of physical education students. The study was undertaken with the aim to observe the effect of yogasanas and pranayama on selected physical and physiological variables of B.P.Ed., and M.P.Ed., students. For this study total 40 male students were selected as subjects from SGGs Khalsa college Mahilpur, Punjab, India. Their age ranged between 18-24 years. Students were given the treatment of selected yogasana and pranayama training for 12 weeks. The results of the study showed regular yogasana and pranayama training improved selected physical fitness variables such as muscular strength and endurance of trunk and flexibility and physiological variables such as pulse rate, vital capacity, and peak flow.

Methodology

To achieve the purpose of the study twenty students studying in the government higher secondary school, Mayiladuthurai were selected as subjects. The age of the selected subjects ranged between 15 to 17 years. Experimental group was called yoga training group yoga training group underwent one hour yoga training for six evening session per week for eight weeks. The experimental group underwent the following yogasanas and pranayama. The yogic programme consists of warming up 5 minutes padmasana, sarvangasana, halasana, bhujangasana, ardhmatsyender asana sirashasana and suriyanamaskar 30 minutes and pranayamas are kapalbati and shitali 15 minutes savasana 10 minutes. Subjects were trained under the guidance of certified yoga trainer. The data were collected prior and immediately after the training programme on Resting rate and Breath hold time. All the tests were carried out with standardized procedure. The collected data of experimental group pre and post test were statistically analyzed by using mean, standard deviation, standard error and t-test and present table I and II. The level of significant was fixed at 0.01 level of confidence.

TABLE-I

The mean, standard deviation, standard error and t- value of experimental group on breath hold time

S.No	Breath hold time	Mean	SD	SE	t- Value
1.	Pre test	27.7	1.71	0.63	8.73*
2.	Post test	33.2	1.11		

* Significant at 0.01 level of confidence this table value for the significance of 2.58

Table –I reveals the mean, standard deviation, standard error and t- value of pre and post test scores of experimental group. The t- values of the selected breath hold time significantly increased and it showed the

efficiency of eight weeks of yoga training. In the selected breath hold time value was greater than table value of 2.58 and it shown the significant difference in the pre and post tests value were found in Breath hold time .

TABLE-II

The mean, standard deviation, standard error and t-value of experimental group on resting pulse rate.

S.No	Resting pulse rate	Mean	SD	SE	t- Value
1.	Pre test	72	1.30	0.46	4.35*
2.	Post test	70	1.59		

* Significant at 0.01 level of confidence this table for the significance 2.58

Table-II reveals the mean, standard deviation, standard error and t- value of pre and post test scores of experimental group on resting pulse rate. The t- values of the selected resting pulse rate significantly altered and it showed the efficiency of eight weeks of yoga training. In the selected resting pulse rate value was greater than table value of 2.58 and it shown the significant difference in the pre and post tests value were found in resting pulse rate . **Figure I**

Comparisons of mean difference on breath hold time

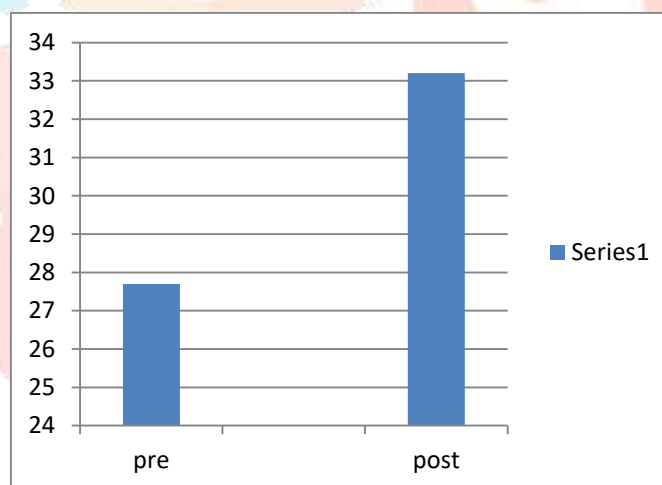
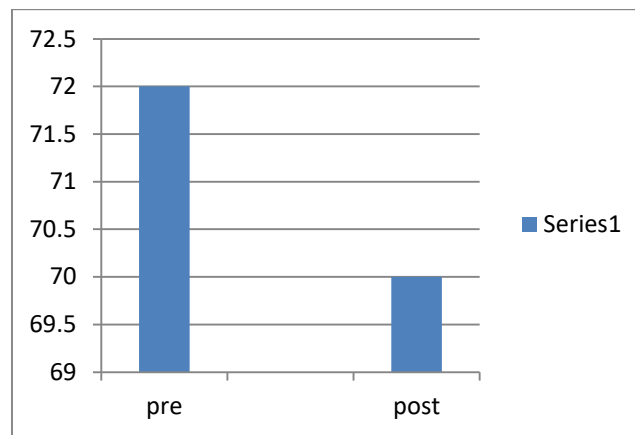


Figure II

Comparisons of mean difference on resting pulse rate



Conclusion

Regular yoga training is good for health. Due to the regular yoga training efficiency of the heart and the lungs were improved. So selected physiological variables such as breath hold time and resting pulse rate was significantly altered respectively. The findings are line with the findings of Pallav(2012),Sunil(2015),chidambararaja(2015) ., Manikandan (2013) and Babu (2011). The result of the study reveals that due to effect of eight weeks of yoga training on selected physiological variable such as Breath hold time and resting pulse rate of the school girls has significantly altered.

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