



## Effect of Selected Yogic Practices on Physical Variables among School Level Handball Players

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Received 10th January 2016, Accepted 20th February 2016

### Abstract

The purpose of the study was to find out the effect of yogic practice on selected physical variables among school level handball players. To achieve this purpose of the study, thirty school students were selected as subjects who were from the St. Claret's higher Secondary school, Karumathur and Government Higher secondary School, Vadakkampatti. The selected subjects were aged between 14 to 17 years. They were divided into two equal groups of fifteen each, Group-I underwent yogic exercise programme and Group-II acted as control that did not participate in any special training apart from their regular curricular activities. The experimental group underwent the training programme for three days per week for eight weeks. Among the physical variables such as flexibility was measuring by sit and reach test and cardiorespiratory endurance was measuring by 12 min run and walk test. The data were collected at prior and immediately after the training programme for each criterion variables. Analysis of covariance (ANCOVA) was applied for analyze the data. In all the cases, 0.05 level was used to test this significance. The findings of the study showed that there was no significant difference between the pre-test of Flexibility and Cardio respiratory endurance. The findings of the study showed that there was a significant difference between the post-test and adjusted post-test of Flexibility and Cardio respiratory endurance.

**Keywords:** Yogic Practices, Physical Variables, School, Handball Players.

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### Introduction

A yoga routine includes muscle strengthening and toning postures, deep breathing, relaxation techniques, and focused meditation for overall enhanced physical and mental fitness. Physical activity is known to both relieve stress and to improve the body's appearance. Therefore, Yoga alleviates stress, which can sap energy and breed negativity, as well as promote mental resilience and a positive body image, resulting in an overall boost in confidence levels. Physical exercise is a bodily activity that develops and maintains physical fitness and overall health. It is often practiced to strengthen muscles and the cardiovascular system, and to hone athletic skills. Frequent and regular physical exercise boosts the immune system, improve cardiovascular endurance. It also improves mental health and helps prevent depression.

Yoga exercises and techniques derived from yoga indirectly affect technical and tactical preparation. Yoga exercises and techniques also have significant, direct effects on the physical, psychological, theoretical preparation and on the regeneration of the strength process. Yoga asanas can be used for warm-up, cool-down, regeneration, compensation of muscle balances,

synthesis of mind and body, activation or deactivation of the body and as supplemental exercises. Yogic techniques, which aim at physical and mental self-culture, have convincing scientific bases and produce consistent physiological changes. It has been reported that yogis are capable of achieving remarkable feats of endurance and controlling their autonomic functions. There is evidence that the practice of yoga improves cardio-respiratory efficiency and performance quotient. There is a need to have yoga better recognized by the health care community as a complement to conventional medical care. Over the last 10 years, a growing number of research studies have shown that the practice of Hatha yoga can improve strength and flexibility, and may help control such physiological variables as blood pressure, respiration and heart rate, and metabolic rate to improve overall exercise capacity. Exponents of yoga believes that other exercise systems only have a physical beneficial effect on the body whereas yogasanas result in the development of the physical, mental, spiritual well-being, physical exercise performed vigorously are helpful in develop in muscles and flexibility in healthy people. In view of the fact that the heart, lungs and respiratory system have to work much harder in other forms of physical exercises, exponents of yoga believe that this is an unnecessary release of vital energy. According to them asanas are different from physical exercise, since they are performed slowly with relaxation

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and concentration. This results in the nervous system, endocrine system, muscular system and the internal organs being benefited. The term exercise is often applied to asanas but asanas should never be confused with an exercise. The word exercise gives us an idea of quick and forceful movements of the body or its parts and repeated action which leads to exertion, tension and fatigue. Asanas, on the other hand are practiced slowly and steadily which bring about physical and mental relaxation.

### Methodology

The purpose of the study was to find out the effect of yogic practice on selected physical variables among school level handball players. To achieve this purpose of the study, thirty school students were selected as subjects who were from the St. Claret's higher Secondary school, Karumathur and Government Higher secondary School, Vadakkampatti. The selected subjects were aged between 14 to 17 years. They were divided

into two equal groups of fifteen each, Group-I underwent yogic exercise programme and Group-II acted as control that did not participate in any special training apart from their regular curricular activities. The experimental group underwent the training programme for three days per week for eight weeks. Among the physical variables such as flexibility was measuring by sit and reach test and cardiorespiratory endurance was measuring by 12 min run and walk test. The data were collected at prior and immediately after the training programme for each criterion variables. Analysis of covariance (ANCOVA) was applied to analyze the data. In all the cases, 0.05 level was used to test this significance.

### Results

The mean and standard deviation scores of pre-test, post-test and adjusted post-test of flexibility and cardio respiratory endurance on yogic exercise and control group are given in table.

**Table I.** Mean standard deviation and 'f' ratio of yogic exercise and control group on Flexibility and Cardio respiratory endurance

Variables		Yogic Exercise		Control		'F' ratio
		Mean	S D	Mean	S D	
Flexibility	Pretest	11.32	0.57	12.31	0.61	0.83
	Posttest	10.52	0.53	12.29	0.82	8.43*
	Adjusted posttest	10.48		12.27		13.84*
Cardio respiratory Endurance	Pretest	245.33	86.9	262.02	34.51	2.24
	Posttest	234.77	84.68	255.67	45.45	9.52*
	Adjusted posttest	262.58		254.10		15.75*

'F' ratio test computed in regards to the Flexibility and Cardio respiratory endurance on yogic exercise and control group in the pre-test, post-test and adjusted post-test are also presented in table.

### Conclusions

The findings of the study showed that there was no significant difference between the pre-test of Flexibility and Cardio respiratory endurance.

The findings of the study showed that there was a significant difference between the post-test and adjusted post-test of Flexibility and Cardio respiratory endurance.

### Reference

1. James A. Raub, "Psychologic Effects of Hatha Yoga on Musculoskeletal and Cardiopulmonary Function", *The Journal of Alternative and Complementary Medicine*, 2002; vol 8 No 6: 797-812.
2. A.J. Kennedy, *Fitness: A Way of Life* (New Delhi: Tata Mcgraw Hill Publishing Company Ltd, 1988) 159.
3. Madanmohan, et. al., "Effect of Yoga Training on Reaction Time, Respiratory Endurance and Muscle Strength", *Indian J. Physiol. Pharmac.*, 36(4), (1992), 229.
4. David H. Clarke and H. Harrison Clarke, *Advanced Statistics*, (New Jersey: Prentice Hall Inc., 1988), 31-38.
5. M.M. Gore, *Anatomy and Physiology for Yogic Practices* (Bombay: B.M. Gore Publishers, 1991) 73.
6. Lawrance E. Morehouse and Augustus E. Miller, "Motor Performance of Girls from Twelve through Eighteen Years of Age", *Research Quarterly*, 39 (December 1987) 1094.
7. M.D. Tran, et al., "Effects of Hatha Yoga Practice on the Health- Related aspects of Physical Fitness", *Preventive Cardiology*, 2001, 4(4): 165-70.