

Effect of Pranayama on Breath Holding Time of School Going Children of Mahilpur

Vaibhav Rai

TGT (PET), JNV, Surankote , Poonch (Jammu)

Abstract

Background - The purpose of this research was to determine the effect of 8 weeks yoga practices (Pranayama) on Breath holding capacity of school going children of Mahilpur. **Methods** - The method of this study was experimental research and sample were 30 students of senior secondary school of Mahilpur (12-15 Aged). Thirty subjects were randomized into two groups experimental group accomplished yoga practice (Pranayama) for eight weeks. **Statistical Technique** - Paired sample 't' test was used to analyzed the data of the study in use of SPSS software. **Result**- it showed that eight weeks pranayama significantly increased the breath holding time of school children. **Recommendation**- it is also recommended other parameters of respiratory system need to investigate for further information of Mahilpur

Keyword: Pranayama, Breath holding time, Yogic exercise.

Introduction

Many people in the West look for the best exercise routine to help them stay in shape. Here is something that has been around for thousands of years and has withstood the test of time. It strengthens the body, circulation, the breathing, and keeps the body limber and in shape. And you can have this completely free of charge, without a fitness coach, by simply using the following instructions. "Surya Namaskar" is Sanskrit which means obeisance or prostrations (Namaskar) to the sun (Surya). It implies that one rise before sun rise in order to do this exercise or pay obeisance to the rising sun. It is a yogic exercise which consists of ten particular postures, one following another, in a fixed, cyclic order to ensure improvement and good health in one's digestion, agility, rejuvenation, beauty and longevity. It will also help one lose weight and trim the waist. There is no equipment to buy, or membership to a gym or fitness club that must be purchased. You just need a little space in your apartment or home. If, however, you begin to feel short-breathed or dizzy, then take a break. Also, pregnant women should not practice it, but can continue it during their period because it can help digestion and the flow of energy and outflow of waste needed at this time.

The yogic exercises have become popular today throughout the world sporting environment. And In the curing of various disease. The roots of the world "Yoga" lies in the ancient Sanskrit term "Yuj" which means to join or unite. Patanjali, the author of the earliest known yoga treatise "Yoga Sutra", explains the ultimate goal of yoga is self realization that is the joining or merging of the individual with the universal consciousness. Patanjali describe this state as one where there is stillness of mind. Pranayama in an important part of yoga. In simple terms "Pranayama" may be called "The control of Breaths". Its essence lies in the modification of our normal breathing, and the breathing pattern can be modified in there different ways.

1. By inhaling and exhaling rapidly, taking shallow breaths.
2. By inhaling and exhaling slowly, taking long or deeps breaths.
3. By holds the acts of breaths all together

A benefit of yoga brings down stress and enhances powers of relaxation. Boosts physical Strength, stamina and flexibility bestows greater powers of concentration and self control which Inculcates impulse control, helps in rehabilitation of old and new enhancing mental clarity boosts functioning of the immune system, enhance posture and muscle tone improves, blood circulation resulting healthy, glowing skin cleanses and improves overall organ functioning. Suryanamaskar is a series of twelve physical posture .it is one of the ancient way of exercise and more than that was the lifestyle of the ancient India. The term suryanamaskar is coined by two world surya and namaskar, meaning suryaissun and namaskar is the way of worshipping god". This sequence of movement and poses can be practiced on varying level of awareness, ranging from that of physical exercise in various style . To complete sadhana which incorporate asana, pranayama, mantra, and chakra meditation? A full round of suryanamaskara is considered to be two sets of the twelve poses with a change in the second set by moving the opposite leg first through the series. Kapalbhathi primarily affects abdominal muscles, lungs, stomach.kidney etc. to function more efficiently. Yoga breathing exercise also known as pranayam are an important part of a developing yogapractice. Pranayama as one of the eight limbs of yoga. As defined by the yoga sutras of Patanjali. In addition to Deeping you practice learning ways to calm or invigorate the body through breathing will greatly benefit one and all.

Breathing is an involuntary act it is an essential part of life although we cannot control the breath, we can control the way that we breathe. A belief that different methods of breath effect the body's healthand life force is the core of pranayam practices.

Yoga provides one of the best means of self improvement and attaining one's full potentials in the advanced stages of yoga. Super-conscious states are attained which result in a bliss deep peace and the emergence of psychic power. Yoga works on the mind and the body at the same time as well as exploiting their interdependence. No other systems do this, western psychology studies the mind and western exercise physiology studies the effect of exercise on the body but there is no emphasis on the inter-relationship of the mind and the body. Yoga asana (postures) and breathing deal with the physical body due to their effects on the brain they also effect the physiological system. **According to Patanjali** Pranayama as the regulation of the incoming and outgoing flow of breath with retention is to be practiced only after perfection.

Objective of the study –

The main purpose of the study was to investigate the effect of eight weeks pranayama training programme on breath holding capacity of school going children of Mahilpur.

Training Schedule-

Material and methods –

Thirty school students, who volunteered to be the subjects, were selected from Mahilpur School.

The age of the subjects was in the range 12 to 15 years. Subjects were randomly assigned to either control group (n=15) and experimental group (n=15), using simple random sampling technique. The experimental group underwent training for eight weeks pranayama training programme. The training schedule was twice a day in the morning and evening session. The duration of the training was one hour daily. No training was given to control groups. Data were collected on breath holding capacity by standard timing instruments at pre and post experimental stages.

Both the groups were administered with pre test for assessment of their breath holding time.

Experimental group was given training of pranayama for duration of eight weeks after the experiment both groups were tested again. The data collected with the standard procedure was statistically analyzed by using "t" test at 0.05 level of significance.

Result and discussion

To assess the effect of pranayama on breath holding capacity, the mean, standard deviation and 't' ratio were computed by using SPSS-16 version and results pertaining to this have been presented in table -

Table-1

t- Table of Breath holding capacity (BHT of Experimental group.)

Variables	Subject	N	Mean	S.D	"t"
BHT	Pre test	15	36.20	4.87	5.28*
	Post test	15	43.20	6.29	

Significant at 0.05 level $t_{.05}(28) = 2.05$

Table-1 indicates that mean, standard deviation of pre-test of Breaths Holding time, of Experimental group, which were found to be 36.20, 4.87 and Post-test values were found to be 43.20, 6.29. The value of paired sample 't' ratio of breath holding, which shows that there was significant difference with pre test and post test values of BHT. The calculated value of "t" was found to be 5.28 at 0.05 level of significance which was higher than the tabulated value of 't' at 0.05 level of significance.

Graph-1

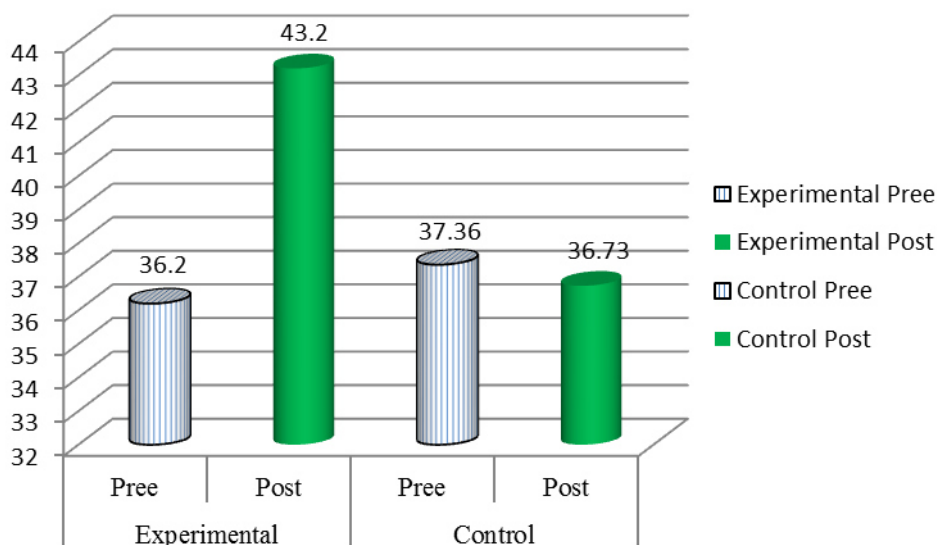


Table-2
t- Table of Breath holding capacity (BHT of Control Group)

Variables	Subject	N	Mean	S.D	"t"
BHT	Pre test	15	37.36	4.62	0.76
	Post test	15	36.73	5.77	

Table-2 indicates that mean, standard deviation of pre-test of Breaths Holding time, of Control group, which were found to be 37.36, 4.62 and Post-test value were found to be 36.73, 5.77. The value of paired sample of 't' ratio of breath holding, which were shows that there was insignificant difference with pre test and post test value of BHT. The calculated value of 't' was found to be 0.76 at 0.05 level of significance which was less than the tabulated value of 't' at 0.05 level of significant.

It was also found that the "t" value of experimental group (5.28) was more than "t" value of control group (0.76).

Conclusion

The result of the showed that yogic practices significantly influenced on breathe holding time. It Also showed increase in capacities related to breathe holding time like O₂ consumption, tolerance Capacity. Therefore, it was concluded that various parameters of respiratory improved after pranayama and also revealed a significant increase in force vital capacity, peak respiratory flow rate and maximum voluntary ventilation.

References

- Behera B (1998) Yoga therapy in chronic bronchitis. J Assoc physician of India 46 (2) : 207-208.
 Benson H, Rosner BA, Marzetta Br, Klemchuk HP (1974) Decreased blood pressure in borderline hypertensive subjects who practiced meditation J Chron Dis 27 : 163-169.
 Bharati Joshi. (2005). "Yoga for Everybody" New Delhi: Rupa publishers, 9.
 Haber D. Health promotion to reduce blood pressure level among older blacks. Gerontologist (1986;):26 :: 119-21 [ISI] [Medline
 James Haughton "The yoga sutras of Patanjali (2003) pp-56 K.s joshi " Yogic Pranayama; Breathing for long life and good health
 Gove.m.m and S.R.D.(1988) Effects of kapalbhati on some of the body function
 Shaver, larry.G. essential of exercise physiology, mc Milan publishing company, New York and Collier mc Milan publisher' London'
 Tell. Set al" An evaluation of the ability to voluntarily reduce heart rate after a month of yoga practice 39 (2004) pp-119-125.
 Mathews, D.K., (1973). *Measurement in physical education*, Philadelphia: W.B.Sounders Company.
 Muni, S. S. B., (2007). *Patanjalayogadarsana of Maharsi Patanjali*. Varanasi: Chaukhambha prakashan.
Oxford Food and Fitness Dictionary. (n.d.). Retrieved from Google.
 Ranganathan, S., (2008). *Patanjali's Yoga Sutra*. New Delhi: Penguin Boo

The IISTE is a pioneer in the Open-Access hosting service and academic event management. The aim of the firm is Accelerating Global Knowledge Sharing.

More information about the firm can be found on the homepage:
<http://www.iiste.org>

CALL FOR JOURNAL PAPERS

There are more than 30 peer-reviewed academic journals hosted under the hosting platform.

Prospective authors of journals can find the submission instruction on the following page: <http://www.iiste.org/journals/> All the journals articles are available online to the readers all over the world without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. Paper version of the journals is also available upon request of readers and authors.

MORE RESOURCES

Book publication information: <http://www.iiste.org/book/>

IISTE Knowledge Sharing Partners

EBSCO, Index Copernicus, Ulrich's Periodicals Directory, JournalTOCS, PKP Open Archives Harvester, Bielefeld Academic Search Engine, Elektronische Zeitschriftenbibliothek EZB, Open J-Gate, OCLC WorldCat, Universe Digital Library, NewJour, Google Scholar

