

INFLUENCE OF PRANAYAMA PRACTICES ON BREATH HOLDING TIME AMONG HOCKEY PLAYERS

by

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Abstract

The purpose of the study was find out the influence of pranayama practice on breath holding among hockey players. To achieve the purpose of this study, 20 male college students are randomly selected as subjects from the M.D.T Hindu college, Tirunelveli, and Tamilnadu, India. Their age ranged from 18 to 22. The selected participants were randomly divided into two groups such as Group A 'pranayama practices training (n=10) and Group 'B' acted as control group (n=10). Group 'A' underwent yoga pranayama practices for five days per week and each session lasted for an hour for six week. Control group was not exposed to any specific training but they were participated in regular activities. The breath holding was assessed by Nostril clip method were selected as variables. The pre and post tests data were collected on selected criterion variables prior and immediately after the training program. The pre and post-test scores were statistically examined by the Analysis of Co-Variance (ANCOVA) for selected variable. It was concluded that the pranayama practices training group had shown significantly improved in breath holding time. However the control group had not shown any significant improvement on any of the selected variable such as breath holding.

Keywords: Yoga, pranayama, Breath holding.

1. Introduction

Yoga is not only popular in India but also in Western countries. Example: Hatha yoga has become popular in North America in recent years (Junkin, 2012)

Yoga and Health are closely related. Yoga is a popular aid in improving both physical and mental health. This is basically the most common goal of people who practice Yoga – for health reasons. They want to ease their back pain, find a method to ease stress, or learn ways to deal with their health problems. This section takes a closer look on how one's body functions and how Yoga practice can benefit one's body. Yoga practice is beneficial - whether physically, mentally, or emotionally. Just keep in mind that there are guidelines in doing Yoga Exercises. Make sure that one do not push yourself in doing poses which are beyond one's limits. Moreover, Yoga is not the sole treatment to many health problems. Swami Sivananda recognised that every Yogi, or human being for that matter, possesses and identifies with each of these elements: Intellect, heart, body and mind. Although many people think this term refers to union between body and mind or body, mind and spirit, the traditional acceptance is union between the Jivatman and Paramatman that is between one's individual consciousness and the Universal Consciousness. Therefore Yoga refers to a certain state of consciousness as well as to methods that help one reach that goal or state of union with the divine. Yoga is a scientific system of physical and mental practices that originated in India more than three thousand years ago. Its purpose is to help each one of us achieve our highest potential and to experience enduring health and happiness. With yoga, we can extend our healthy, productive years far beyond the accepted norm and, improve the quality of our lives. Health related physical fitness of a person is dependent on both lifestyle related factors such as daily physical activity levels, nutritional habits and genetic factors and is an important indicator of health status (Takken, 2003).

Pranayama also helps to connect the body to its battery, the solar plexus, where tremendous potential energy is stored. When tapped through specific techniques this vital energy, or prana, is released for physical, mental and spiritual rejuvenation. Regular practice removes obstructions, which impede the flow of vital energy. When the cells work in unison, they bring back harmony and health to the system. 20 to 25 minutes (every morning or evening) of pranayama practice increases lung capacity, breathing efficiency, circulation, cardiovascular efficiency, helps to normalize blood pressure, strengthens and tones the nervous system, combats anxiety and depression, improves sleep, digestion and excretory functions, provides massage to the internal organs, stimulates the glands, enhances endocrine functions, normalizes body weight, provides great conditioning for weight loss, improves skin tone and complexion (Sugumar and Raghavan, 2010).

Just as the word yoga is one of wide import, so also is prana. Prana means breath, respiration, life, vitality, wind, energy or strength. It also connotes the soul as opposed to the body. The word is generally used in the plural to indicate vital breaths. Pranayama we increase the expansion and contraction of our lungs so that they become capable of purifying more and more blood. In other exercises, the lungs breathe quickly, but not deeply. The oxygen, therefore, does not reach their innermost parts. These parts therefore keep on accumulating wastes and impurities and after some time show off as disease. In fact, yogasanas, pranayama and six yogic practices of purification are a panacea for all ills. They have a unique power to throw waste products out of the body. They can therefore be depended upon for physical and mental well-being (Pal, 1996).

Yoga is a very ancient discipline. It is recognized as one of the most important and valuable gifts of the Indian heritage. Today the world is looking to Introduction 25 yoga for solving the various problems men are facing. At no time in the past yoga has attracted so much attention from people in so many places in the world as it today. Yoga is an indigenous physical, mental training. French scholar, Masson Oural, has described yoga as the permanent basis of Indian culture. Hence it has its varieties and diversions as it has its right and discipline, the different kinds of yoga have played a vital role in forming the spirit of modern India (Chandrasekaran, 1999).

2. Purpose of the Study

The purpose of the study was to find the impact of pranayama practices on breath holding time among hockey players.

3. Methodology

To achieve the purpose of this study, 20 male college students are randomly selected as subjects from the M.D.T hindu college, Tirnelveli, Tamilnadu, India. Their age ranged from 18 to 22. The selected participants were randomly divided into two groups such as Group 'yoga pranayama practices' training (n=10) and Group 'B' acted as control group (n=10). Group 'A' underwent pranayama practices for five days per week and each session lasted for an hour for six week. However, control group was not exposed to any specific training but they participated in the regular schedule. The breath holding was assessed by nostril clip method test were selected as variables. The pre and post tests data were collected on selected criterion variables prior and immediately after the training program. The pre and post-test scores were statistically examined by the Analysis of Co-Variance (ANCOVA) for selected variable. The level of significance was fixed at .05 level of confidence, which was considered as appropriate.

4. Analysis of Data

TABLE I
MEANS AND DEPENDENT 't'-TEST FOR THE PRE AND POST TESTS ON
BREATH HOLDING OF EXPERIMENTAL AND CONTROL GROUPS (In Seconds)

Criterion variables	Mean	Experimental Group	Control Group
Breath holding	Pre test	42.21	42.26
	Post test	49.21	43.85
	't'test	12.46*	1.28

*Significant at .05 level. (Table value required for significance at .05 level for 't'-test with df 9 is 2.26)

From the table I the dependent 't'-test values of breath holding time between the pre and post tests means of experimental groups were greater than the table value 2.26 with df 9 at 0.05 level of confidence, it is concluded that experimental group had significant improvement in the breath holding time compared to control group.

4.1 Computation of Analysis of Covariance

The descriptive measures and the results of analysis of covariance on the criterion measures were given in the following tables.

TABLE – II
COMPUTATION OF MEAN AND ANALYSIS OF COVARIANCE ON BREATH HOLDING TIME OF
EXPERIMENTAL AND CONTROL GROUPS

	Experimental Group	Control Group	Source of Variance	Sum of Squares	df	Mean Square	F
Breath holding (Adjusted Post Mean)	50.09	43.56	BG	58.39	1	58.39	25.17*
			WG	39.44	17	2.32	

* Significant at 0.05 level. Table value for df 1, 17 was 4.45

The above table indicates the adjusted mean value on breath holding time of experimental and control groups were 50.09 & 43.56 respectively. The obtained F-ratio of 25.17 for adjusted mean was greater than the table value 4.45 for the degrees of freedom 1 and 17 required for significance at 0.05 level of confidence. The result of the study indicates that there was a significant difference among experimental and control groups on breath holding time.

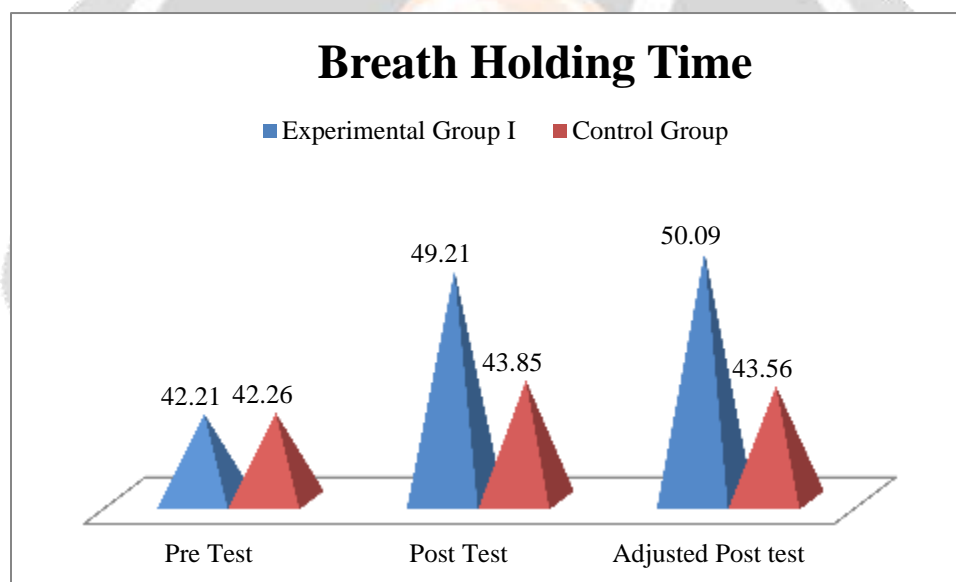


FIGURE I: PRE TEST, POST TEST AND ADJUSTED POST TEST MEAN VALUES OF EXPERIMENTAL GROUP AND CONTROL GROUP ON BREATH HOLDING TIME.

5. Conclusions

1. There was significant improvement breath holding time due to the impact of yogic practices on breath holding time among hockey players.
2. However the control group had not shown any significant improvement on any of the selected variable.

6. References

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