



EFFECT OF PRANAYAMA PRACTICE ON BREATH HOLDING TIME AMONG UNIVERSITY KABADDI PLAYERS

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Abstract

The purpose of the study was to find out the effect of pranayama practice on breath holding time among university kabaddi players. To achieve this purpose of the study, thirty men students studying in the Department of Physical Education and Sports Sciences, Annamalai University, Annamalai Nagar, Tamil Nadu, were selected as subjects and they were divided into two equal groups of fifteen subjects each, such as pranayama practice group and control group. The Group I underwent pranayama practice programme for three days per week for twelve weeks and Group II acted as control which did not participate in any special pranayama practice programme apart from the regular pranayama practice as per the curriculum. The following dependent variable namely breath holding time was selected as criterion variable and was tested by using holding breath for time. All the subjects of two groups were tested on selected dependent variables at prior to and immediately after the pranayama practice programme. The analysis of covariance (ANCOVA) was used to analyze the significant difference, if any, between the groups. The .05 level of confidence was fixed to find out the level of significance which was considered as an appropriate. The results of the study revealed that there was a significant difference between pranayama practice group and control group on breath holding time. And also the results of the study showed that there was a significant improvement on breath holding time due to pranayama practice.

Keywords: Pranayama Practice, Breath Holding Time, Ancova.

INTRODUCTION

Pranayama is an exact science. It is the regulation of breath or control of prana which is the stoppage of inhalation and exhalation, that follows after securing that steadiness of posture or seat, Asana. As the Bible states, god breathed into man the breath of life, and he become a living soul".

The Sankrit word prana means 'vital force' or cosmic energy'. It also signifies 'life' or 'breath', Ayama means the control of the prana. Hence pranayama means control of the vital force by concentration and regulated breathing. It is physical, mental, spiritual and cosmic energy. All forms of energy are prana is usually translated as breath; which moves in the thoracic region absorbing vital energy; yet, this is the only one of its many manifestations in the body. (Ayama means control). So pranayama is the science of breath control. The movements of the thoracic organs include vertical ascension, horizontal expansion and a circumferential movement.

The science of pranayama teaches us how to reduce the respiratory and heart rate, while increasing the quantum of oxygen drawn in and decreasing the outflow of breath. This can be as minimal as two or three cycle per minute. When the respiratory rate is thus lowered, the metabolic rate of the body also reduces. The body is brought to a state of temporary hibernation. All the cells are rested, and relaxation is ensued. The sympathetic overdrive is reduced, with consequent energy conservation. In pranayama, the mind is kept attentive so

that the rhythm of breathing is regulated. The frontal brain, which is the seat of intellectual activity, is made quiet. Complete neuro-physiological relaxation occurs.

METHODOLOGY

The purpose of the study was to find out the effect of pranayama practice on breath holding time among university kabaddi players. To achieve this purpose of the study, thirty men students studying in the Department of Physical Education and Sports Sciences, Annamalai University, Annamalai Nagar, Tamil Nadu, were selected as subjects and they were divided into two equal groups of fifteen subjects each, such as pranayama practice group and control group. The Group I underwent pranayama practice programme for three days per week for twelve weeks and Group II acted as control which did not participate in any special pranayama practice programme apart from the regular pranayama practice as per the curriculum. The following dependent variable namely breath holding time was selected as criterion variable and was tested by using holding breath for time. All the subjects of two groups were tested on selected dependent variables at prior to and immediately after the pranayama practice programme. The analysis of covariance (ANCOVA) was used to analyze the significant difference, if any, between the groups. The .05 level of confidence was fixed to find out the level of significance which was considered as an appropriate.

ANALYSIS OF THE DATA

The analysis of covariance on breath holding

time of pre and post tests for pranayama practice group and control group was presented in Table I.

TABLE I
ANALYSIS OF COVARIANCE OF THE DATA ON BREATH HOLDING TIME OF PRE AND POST TESTS
SCORES OF PRANAYAMA PRACTICE GROUP AND CONTROL GROUP

Test	Pranayama Practice Group	Control Group	Source of variance	Sum of variance	df	Mean Squares	Obtained "F" Ratio
Pre Test							
Mean	38.24	38.41	Between	0.3	1	0.3	0.412
S.D.	0.99	0.98	Within	20.4	28	0.729	
Post Test							
Mean	51.11	39.22	Between	17.63	1	17.63	21.396*
S.D.	0.78	0.97	Within	23.07	28	0.824	
Adjusted Post Test							
Mean	50.28	39.33	Between	22.11	1	22.11	172.73*
			Within	3.46	27	0.128	

* Significant at .05 level of confidence.

(The table value required for significance at .05 level of confidence with df 1 and 28, 1 and 27 were 4.20 and 4.215 respectively)

Table I shows that the adjusted post-test means on breath holding time of pranayama practice group and control group are 50.28 and 39.33 respectively. The obtained "F" ratio of 172.73 for adjusted post-test mean is greater than the table value of 4.215 for df 1 and 27 required for significance at .05 level of confidence on breath holding time.

The results of the study showed that there was a significant difference between the adjusted post test mean of pranayama practice group and control group on breath holding time.

RESULTS

1. There was a significant difference among pranayama practice group and control group on breath holding time.
2. There was a significant improvement on breath holding time due to pranayama practice.

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