



The effect of Ujjayi and Bhastrika pranayama on selected respiratory variables of adulthood people

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Abstract

The purpose of the study was to analyze the effect of Ujjayi and Bhastrika pranayama on vital capacity and ventilatory Volume. For this study twenty two male Volleyball players were randomly selected as subjects from the Bihar state. Further the subjects were divided into two groups' i.e. experimental and control group. Experimental group were followed Bhastrika and Ujjayi Pranayama for eight weeks and the control group did not participated in the training programme. The criterion measures for measuring Vital Capacity and maximal Ventilatory Volume was measured with Spirometer in liters. The significance of mean difference between the pre-test and post test scores each of the criterion variables among the groups were analyzed by using the 't'- ratio, the level of significant was 0.05. The results of the study have indicated that there is a significant difference in two groups.

Conclusions: After analyzing the data it was found significant at 0.05 level of significance. The 't'- ratio revealed that there is significant change on the Vital Capacity of yoga practitioner through the Ujjayi and Bhastrika Pranayama programme. Ujjayi and Bhastrika Pranayama were effective in bringing about significant improvement in the Vital Capacity. Ujjayi and Bhastrika Pranayama were not much effective in significant improvement of Maximal Ventilatory Volume.

Keywords: Ujjayi pranayama, Bhastrika pranayama, yoga

Introduction

The purpose of the study was to analyze the effect of Ujjayi and Bhastrika pranayama on vital capacity and ventilatory Volume.

Subjects

Twenty-two Volleyball players were randomly selected as subjects from the Bihar state. The age ranged from 20 to 25 years. The subjects were randomly assigned as experimental and control groups, equally.

Methods

To find out the effect of selected Pranayama on respiratory variables, Vital capacity and Maximal ventilatory volume were selected. The subjects were divided in two equal groups i.e. experimental and control group. The experimental group underwent six weeks pranayama training programme five days a week. The data for vital capacity and maximal ventilatory volume was collected twice, that is before the start of study and after the six months.

In order to know the effect of Ujjayi and Bhastrika Pranayama on vital capacity and ventilatory volume 't' ratio was applied at 0.05 levels of significance.

Results

In order to determine the significant difference between experimental group and control group after administering the pranayama training, the pre and post test score are collected, the initial and final test score has been analyzed using 't'- ratio. The results of study are presented in tabular form and figure for each selected variable separately.

Table 1: Significant difference between pre-test and post- test means of experimental and control group in relation to vital capacity

No. of Subjects	Variables	Means		SD Difference	Cal. Value
		Pre-test	Post-test		
11	Experimental Group	2.659	3.367	0.189	9.287*
11	Control Group	2.73	2.731	0.071	1.021

* Tab $t_{0.05}(10) = 1.812$

Table-1 reveals that there was significant difference in the initial means and the final means of Vital Capacity of yoga practitioners after the completion of six months Ujjayi and Bhastrika pranayama training programme as the obtained 't'- ratio (9.287) was greater than the tabulated 't' value (1.021) at 0.05 level of significance.

It was also evident from the table that there was no significant difference in the initial and final means of Vital Capacity of subjects of control group as the obtained 't' value (1.021) at 0.05 level of significance.

Table 2: Significant difference between pre-test and post-test means of experimental and control group in maximal ventilatory volume

No. of Subjects	Variables	Means		SD Difference	Cal. Value
		Pre-test	Post-test		
11	Experimental Group	114.295	137.091	12.949	5.673*
11	Control Group	114.765	117.455	1.567	5.431*

* Tab, $t_{0.05}(10) = 1.812$

Table-2 reveals that there was significant difference in the initial means and the final means of Maximal Ventilatory Volume of yoga practitioners after the completion of six months Ujjayi and Bhastrika Pranayama training programme as obtained 't'- ratio (5.673) was greater than the tabulated 't' value (1.812) at 0.05 level of significance.

It also evident from the table that there was significant difference in the initial and final means of maximal Ventilatory volume of the subjects of control group as the obtained 't' value (5.431) was greater than tabulated 't' value (1.812) at 0.05 level of significance.

Conclusions

The eight week Ujjayi and Bhastrika Pranayama training programme was found to be effective on Vital Capacity and Maximal Ventilatory Volume for experimental group.

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