ISSN: 2349 - 4891

International
Journal of Recent Research and Applied Studies
(Multidisciplinary Open Access Refereed e-Journal)

Influence of Sectional Breathing on Selected Physiological Variables among College Men Students

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Received 06th July 2020, Accepted 08th August 2020

Abstract

The purpose of the study was to find out the influence of sectional breathing on selected physiological variables among college men students. To achieve this purpose, thirty men students from CSSR & SRRM Degree College, Kamalapuram, YSR (D), Andhra Pradesh, India were randomly selected as subjects. They were divided into two equal groups and each group consisted of fifteen subjects. Group - I underwent sectional breathing practices for five days per week for six weeks and group - II acted as control who did not participate in any special training apart from the regular curricular activities. The subjects were tested on selected criterion variables such as breath holding time and resting pulse rate at prior to and immediately after the training period. The selected criterion variables such as breath holding time and resting pulse rate were measured by using holding the breath for maximum duration and radial pulse respectively. The analysis of covariance (ANCOVA) was used to find out the significant differences if any, between groups on selected criterion variables separately. In all the cases, .05 level of confidence was fixed to test the significance, which was considered as an appropriate. The results of the study revealed that there was a significant difference between experimental group and control group on breath holding time and resting pulse rate. And also the results of the study showed that there was a significant improvement on breath holding time and resting pulse rate due to sectional breathing practices.

Keywords: Sectional Breathing, Breath Holding Time, Resting Pulse Rate, ANCOVA.

Introduction

The three Sanskrit words Prana, Pran and Pranayama come from the same Sanskrit root 'pran' which represents the life force, the universal energy. These three concepts and the realities they represent from a continuum in which human beings are indissolubly linked to the divine source of cosmic energy.

The science of breath is called in Sanskrit *pranayama*.The word *pranayama* is a compound word which consists of *prana* and yama. *Prana* means life-force, or the vital energy, or that force by which we have our life .*Ayama*means control, i.e. control of the breath. That is the literal meaning. The first expression of life-force or *prana* is in the motion of the lungs. If a child does not breath attar its birth for some time, we give up the hope of that child. The first expression of life would be the breath, and motion of the lungs produces the breath. It is the primary function, and all other functions of the heart, digestive organs, and others are secondary.

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Methodology

The purpose of the study was to find out the influence of sectional breathing on selected physiological variables among college men students. To achieve this purpose, thirty men students from CSSR & SRRM Degree College, Kamalapuram, YSR (D), Andhra Pradesh, India were randomly selected as subjects. They were divided into two equal groups and each group consisted of fifteen subjects. Group - I underwent sectional breathing practices for five days per week for six weeks and group - II acted as control who did not participate in any special training apart from the regular curricular activities. The subjects were tested on selected criterion variables such as breath holding time and resting pulse rate at prior to and immediately after the training period. The selected criterion variables such as breath holding time and resting pulse rate were measured by using holding the breath for maximum duration and radial pulse respectively. The analysis of covariance (ANCOVA) was used to find out the significant differences if any, between groups on selected criterion variables separately. In all the cases, .05 level of confidence was fixed to test the significance, which was considered as an appropriate.

Analysis of the Data

Breath Holding Time

The analysis of covariance on breath holding time of pre and post tests for sectional breathing group and control group was used to analysis the data which is and presented in table 1.

Table 1. *Analysis of covariance on breath holding time of pre and post tests scores of sectional breathing group and control groups*

Test	Sectional Breathing Group	Control Group	Source of Variance	Sum of Squares	df	Mean Squares	Obtained 'F' Ratio
Pre Test							
Mean	36.22	36.10	Between	0.0189	1	0.0189	0.212
S.D.	1.18	1.09	Within	2.489	28	0.089	
Post Test							
Mean	42.11	36.21	Between	1.145	1	1.145	4.46*
S.D.	0.98	1.09	Within	7.214	28	0.257	
Adjusted Post Test							
Mean	42.08	36.14	Between	2.587	1	2.587	8.29*
			Within	8.412	27	0.312	

* Significant at .05 level of confidence.

(The table values required for significance at .05 level of confidence with df 1 and 28 and 1 and 27 were 4.20 and 4.21 respectively)

The table 1 shows that the adjusted post-test means on breath holding time of sectional breathing group and control group are 42.08 and 36.14respectively. The obtained "F" ratio of 8.29 for adjusted post-test mean is greater than the table value of 4.21 for df 1and 27 required for significance at .05 level of confidence on breath holding time.

Resting Pulse Rate

The analysis of covariance on resting pulse rate of pre and post tests for sectional breathing group and control group was used to analysis the data which is and presented in table 2.

Table 2. *Analysis of covariance on resting pulse rate of pre and post tests scores of sectional breathing group and control groups*

Test	Sectional Breathing Group	Control Group	Source of Variance	Sum of Squares	df	Mean Squares	Obtained 'F' Ratio
Pre Test							
Mean	70.22	71.21	Between	0.0078	1	0.0078	0.177
S.D.	0.89	0.91	Within	1.241	28	0.044	
Post Test							
Mean	68.11	71.20	Between	1.254	1	1.254	7.69*
S.D.	0.81	0.91	Within	4.558	28	0.163	
Adjusted Post Test							
Mean	68.12	71.21	Between	1.0045	1	1.0045	4.37*
			Within	6.217	27	0.23	

* Significant at .05 level of confidence.

(The table values required for significance at .05 level of confidence with df 1 and 28 and 1 and 27 were 4.20 and 4.21 respectively)

The table 2 shows that the adjusted post-test means on resting pulse rate of sectional breathing group and control group are 68.12 and 71.21respectively. The obtained "F" ratio of 4.37 for adjusted post-test mean is more than the table value of 4.21 for df 1and 27 required for significance at .05 level of confidence on resting pulse rate.

Results

1. There was a significant difference among sectional breathing group and control group on breath holding time.
2. There was a significant difference among sectional breathing group and control group on resting pulse rate.
3. There was a significant improvement on breath holding time and significant reduction on resting pulse rate due to sectional breathing practices.

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