



Impact of Yogic Practices on Selected Physiological Parameters Among University Men Students

C. Selvaraj¹ & Dr. P. Karthikeyan²

¹Research Scholar, Department of Physical Education, Annamalai University, Chidambaram, Tamilnadu, India.

²Associate Professor, Department of Physical Education, Annamalai University, Chidambaram, Tamilnadu, India.

Received 16th September 2020, Accepted 16th October 2020

Abstract

The purpose of the study was designed to examine the effect of yogic practices on resting pulse rate and breath holding time of university men students. For the purpose of the study, thirty men students from the Department of Physical Education, Annamalai University were selected as subjects. They were divided into two equal groups. Each group consisted of the fifteen subjects. Group I underwent yogic practices for three days per week for twelve weeks. Group II acted as control who did not undergo any special training programme apart from their regular physical education programme. The following variables namely resting pulse rate and breath holding time were selected as criterion variables. All the subjects of two groups were tested on selected dependent variables by using radial pulse and holding the breath for time respectively at prior to and immediately after the training programme. The analysis of covariance was used to analyze the significant difference, if any among the groups. The .05 level of confidence was fixed as the level of significance to test the 'F' ratio obtained by the analysis of covariance, which was considered as an appropriate. The results of the study showed that there was a significant difference between yogic practices group and control group on resting pulse rate and breath holding time. And also it was found that there was a significant reduction on resting pulse rate and breath holding time due to twelve weeks of yogic practices.

Keywords: Yogic Practices, Resting Pulse Rate, Breath Holding Time, ANCOVA.

© Copy Right, IJRRAS, 2020. All Rights Reserved.

Introduction

Yoga was developed and perfected over the centuries by philosophers and mystics in India. It is basically a method by which we increase the body's supply of energy and remove any interference to the transmission of energy throughout the body. Yoga has specialized in this subject for thousands of years, and streamlined the methods to attain this aim. Yoga works on the mind and the body at the same time, as well as exploiting their interdependence. No other system does this. Western psychology studies the mind, western exercise physiology studies the effect of exercise on the body, but there is no emphasis on the interrelationship of the mind and the body.

Methodology

The purpose of the study was designed to examine the effect of yogic practices on resting pulse rate and breath holding time of university men students.

For the purpose of the study, thirty men students from the Department of Physical Education, Annamalai University were selected as subjects. They were divided into two equal groups. Each group consisted of the fifteen subjects. Group I underwent yogic practices for three days per week for twelve weeks. Group II acted as control who did not undergo any special training programme apart from their regular physical education programme. The following variables namely resting pulse rate and breath holding time were selected as criterion variables. All the subjects of two groups were tested on selected dependent variables by using radial pulse and holding the breath for time respectively at prior to and immediately after the training programme. The analysis of covariance was used to analyze the significant difference, if any among the groups. The .05 level of confidence was fixed as the level of significance to test the 'F' ratio obtained by the analysis of covariance, which was considered as an appropriate.

Analysis of the data

Resting pulse rate

The analysis of covariance on resting pulse rate of the pre and post test scores of yogic practices group and control group have been analyzed and presented in Table 1.

Correspondence

Dr. P.Karthikeyan

Annamalai University

Table 1. Analysis of covariance of the data on resting pulse rate of pre and post tests scores of yogic practices and control groups

| Test | Yogic practices group | Control Group | Source of Variance | Sum of Squares | df | Mean Squares | Obtained 'F' Ratio |
|---------------------------|-----------------------|---------------|--------------------|----------------|----|--------------|--------------------|
| Pre Test | | | | | | | |
| Mean | 72.47 | 72.73 | Between | 0.53 | 1 | 0.53 | 0.90 |
| S.D. | 0.72 | 0.93 | Within | 16.67 | 28 | 0.60 | |
| Post Test | | | | | | | |
| Mean | 68.93 | 72.40 | Between | 90.13 | 1 | 90.13 | 22.80* |
| S.D. | 0.77 | 0.71 | Within | 110.67 | 28 | 3.95 | |
| Adjusted Post Test | | | | | | | |
| Mean | 69.02 | 72.31 | Between | 78.64 | 1 | 78.64 | 161.05* |
| | | | Within | 13.19 | 27 | 0.49 | |

* Significant at .05 level of confidence.

(The table values required for significance at .05 level of confidence for 2 and 28 and 2 and 27 are 3.34 and 3.35 respectively).

The table 1 shows that the adjusted post-test means of yogic practices group and control group are 69.02 and 72.31 respectively on resting pulse rate. The obtained "F" ratio of 161.05 for adjusted post-test means is more than the table value of 3.35 for df 1 and 27 required for significance at .05 level of confidence on resting pulse rate. The results of the study indicated that there was a significant difference between the adjusted

post-test means of yogic practices group and control group on resting pulse rate.

Breath holding time

The analysis of covariance on breath holding time of the pre and post test scores of yogic practices group and control group have been analyzed and presented in Table 2.

Table 2. Analysis of covariance of the data on breath holding time of pre and post tests scores of yogic practices and control groups

| Test | Yogic practices group | Control Group | Source of Variance | Sum of Squares | df | Mean Squares | Obtained 'F' Ratio |
|---------------------------|-----------------------|---------------|--------------------|----------------|----|--------------|--------------------|
| Pre Test | | | | | | | |
| Mean | 40.87 | 41.07 | Between | 0.30 | 1 | 0.30 | 0.29 |
| S.D. | 0.96 | 0.96 | Within | 28.67 | 28 | 1.02 | |
| Post Test | | | | | | | |
| Mean | 46.87 | 41.33 | Between | 229.63 | 1 | 229.63 | 25.05* |
| S.D. | 1.00 | 0.94 | Within | 256.70 | 28 | 9.17 | |
| Adjusted Post Test | | | | | | | |
| Mean | 46.94 | 41.26 | Between | 240.27 | 1 | 240.27 | 678.35* |
| | | | Within | 9.56 | 27 | 0.35 | |

* Significant at .05 level of confidence.

(The table values required for significance at .05 level of confidence for 2 and 28 and 2 and 27 are 3.34 and 3.35 respectively).

The table 2 shows that the adjusted post-test means of yogic practices group and control group are 46.94 and 41.26 respectively on breath holding time. The obtained "F" ratio of 678.35 for adjusted post-test means is more than the table value of 3.35 for df 1 and 27 required for significance at .05 level of confidence on breath holding time. The results of the study indicated that there was a significant difference between the

adjusted post-test means of yogic practices group and control group on breath holding time.

Conclusions

1. There was a significant difference between yogic practices group and control group on resting pulse rate and breath holding time.
2. And also it was found that there was a significant improvement on selected criterion

variables such as resting pulse rate and breath holding time due to yogic practices.

References

1. Ajmeer Singh, et.al. (2005). Essential of Physical Education (New Delhi: Kalyani Publication), p 66.
2. Astrand, P. and Kaaxe R., (1997), Text Book of Work Physiology, New York: McGraw Hill Book Company, p. 27.
3. Clarke D.H, and Clarke H.H., (1992), Research Process in Physical Education, Englewood Cliffs, N.J: Prentice Hall Inc.
4. Gharote, M.L. (1996). Guidelines for Yogic Practices, Lonawala: Medha Publications, p.51.
5. Iyengar, B.K.S. (1991). Light on Yoga, Gopsons Papers Ltd., Nodia, India.
6. Iyengar, B.K.S. (1999). The Gift of Yoga, Harpers Collins Publications India Pvt Ltd., New Delhi.
7. Sharma, P.D. (1994), Yogasana and Pranayama for Health Bombay, India: Navneet Publication, pp. 10-11.
8. Taimni (1996), The Science of Yoga: The Yoga Sutras of Patanjali, (India: Lonavala: Kaivalyathama).