



P-ISSN: 2394-1685
E-ISSN: 2394-1693
Impact Factor (ISRA): 5.38
IJPESH 2017; 4(6): 87-88
© 2017 IJPESH
www.kheljournal.com
Received: 18-09-2017
Accepted: 19-10-2017

Daksh Sharma
Assistant Professor of Phy.Edu
SGGS Khalsa College Mahilpur,
Punjab, India

Effects of seven weeks Kapalbhathi pranayama training on vital capacity of physical education students

Daksh Sharma

Abstract

To fulfill the purpose of the study, total 20 students of Physical Education (male) were randomly selected from the Department of Physical Education S.G.G.S Khalsa College Mahilpur. The subjects were ranged from 19 to 25 years of age. The purpose of the study was to find out the effects of 7 week Kapalbhathi Pranayama training on the vital capacity of Physical Education students.

The parameter selected for the purpose of the study was vital capacity. The mean, standard deviation and 't' test was used to compare the parameter within the group. Data was analyzed using SPSS version 16.0 (statistical package for the social sciences, version 16.0, SPSS Inc, Chicago, USA)

After the 7 weeks training of Kapalbhathi pranayama, it was found that the training program of Kapalbhathi had significant improvement in vital capacity of physical education Students.

Keywords: Kapalbhathi pranayama, vital capacity, physical education students

Introduction

Breathing is life. The ancient yogis in India knew the intimate connection between breath and mind. For example, when your mind is angry, watch your breathing. It will be disturbed and similarly if you hold your breath for long, mind will be agitated. Pranayama or control or regulation of the life force is the fourth step in the Ashtanga yoga system of Patanjali. The control of breath leads to the control of the life force or prana.

Training to yoga respiration selectively increased the respiratory sensation, perhaps through its persistent conditioning of the breathing pattern (Florence *et al.*, 2005). It is based on ancient theories, observations and principles of mind-body relationships.

Substantial research has been conducted to look at the numerous health benefits of yoga postures (asana), yoga breathing (pranayama) and meditation. The physiological and psychological benefits of yoga have been presented in several studies (Udapa *et al.*; 1972, Singh *et al.*; 2009, Bal; 2010) ^[1]. Yoga and pranayama may be as effective as or better than exercise at improving a variety of health-related outcome measures (Ross and Thomas; 2010).

Material and Methods

Subjects

Twenty randomly selected male students of Post graduate department of Physical Education, S.G.G.S Khalsa College Mahilpur, Punjab and Volunteered to participate in the study. The subject's age was between 19-25 years. A written consent was obtained from the subjects. All were doing Bachelor degree in Physical Education. The subjects were highly motivated to participate in the study.

The subjects were directed to 7-week Kapalbhathi Pranayama training program. These lasted 7-weeks consisted of daily sessions, lasting 30 minutes.

The trainer involved in this study addressed the group of 20 students about the purpose of this study, the procedure to be followed. Then the trainer demonstrated the Kapalbhathi pranayama to the subjects. Each students was observed separately. The trimming of the session was in the morning from 6.30am-6.45am.

Correspondence
Daksh Sharma
Assistant Professor of Phy.Edu
SGGS Khalsa College Mahilpur,
Punjab, India

Kapalbhati Pranayama Training

After doing the initial warm up, all subjects were put through Kapalbhati Pranayama for 30 minutes. They were asked to sit in Sukhasana (the comfortable position) and regulate the breathing. In Kapalbhati Pranayama, the inhalation is slow but the exhalation is vigorous, there is a split second of retention after each inhalation.

Steps:

1. First sit in Sukhasana then close your eyes and keep your spine straight.
2. Now take a deep breath (inhale deeply) through your both nostrils until your lung are full of air.
3. Now exhale through both nostrils forcefully, so your stomach will go deep inside. As you exhale you feel some pressure in your stomach.
4. While the process of exhaling, there is a hissing sound, at this point try to think that your disorder are coming out of your nose. Repeat this process for 5 minutes. The repetitions depend upon the comfort ability of the physical education students.

Vital Capacity Measurement

The vital capacity of the subjects was measured by using Spiro-meter. The subjects were asked to take a deep breath and then to blow hard into mouthpiece of the Spiro-meter with a sharp blast. Three recordings were taken at one-minute intervals and the average of three highest readings was noted.

Data Analysis

Values are presented as mean values and SD. The students paired 't' test was used to compare parameters within group. Data was analyzed using SPSS Version 16.0 (statistical package for the Social Sciences, version 16.0, SPSS Inc. Chicago, IL, USA)

Results

Table 1: Means, SD and 't' Values of Vital Capacity (Liters) of Physical Education Students During Pre Test and Post Test.

Group	Test	N	Mean	SD	't'-value
Group of Physical Education Students	Pre-test	20	4.73	0.4	6.51**
	Post-test	20	4.90	0.37	

This table, showed the mean, S.D and 't' values of vital capacity of the group of Physical Education students. Pre-test mean and S.D value of the group has been calculated as 4.73 \pm 0.4 whereas mean and standard deviation value of Post-test was applied, it has shown the 6.51 value which is significant at 0.01.

Discussion

Pranayama practices are known to improve the health, reduces stress and anxiety significantly. From the results it is evident that the 7-weeks of Kapalbhati Pranayama Training Programme showed significant improvement in the vital capacity of the Physical Education students. The findings are supported by the study conducted by Upadhyay *et al.* (2008). The findings are also supported by the study conducted by Bal (2008), "The study showed significant improvement in vital capacity and maximal ventilator volume with the training programme of bhastrika and anulom vilom pranayama." The results of the present study demonstrated the beneficial effects of Kapalbhati Pranayama on pulmonary function of the respiratory system.

Conclusion

The Conclusion of the study was that the 7-week Kapalbhati pranayama training programme had significant effect on vital capacity of physical education students. Therefore, such type of training may be recommended for the physical education students to improve their physical and psychological fitness. The significant results found in the study might also help the sports person to improve their physiological efficiency.

References

1. Bal S Baljinder. Effects of anulom vilom and bhastrika pranayama on the vital capacity and Maximal Ventilory volume. Journal of physical Educational sports management. 2010; 1(1):11-15.
2. Chhina CS. The voluntary control of autonomic responses in Yogis. Proc International Union Physiolo Sci. 1974; 10:103-104.
3. Gopal. Effect of Yogasnas and Pranayamas on Blood Pressures, Pulse Rate and some Respirations functions.
4. Dr. Vinod Kumar, Dr. Ajay, Prof. Daksh Sharma. Benefits of Yoga in life by Aashna Publications Jallandhar.