

EFFECT OF KAPALBHATI ON VITAL CAPACITY OF SPORTSPERSON

Dr. Neelam Kumari Sharma, Assistant Professor,
Lovely Professional University, Phagwara, Punjab, India
Ms. Loveleen Bal and Mr. Daljit Singh, Research Scholar,
Lovely Professional University, Phagwara, Punjab, India



ABSTRACT

The purpose of the study was to investigate the effect of Kapalbhathi on vital capacity of sportsperson. Twenty male sportsperson between the age group of 18-25 were the sample of the study and they were selected through purposive random sampling technique from Lovely Professional University. There were two experimental groups 10 subjects in each group 1. Experimental group 2. Control group. Experimental group were performed Kapalbhathi training for 10 weeks. Pretest and posttest was taken by the researcher and training program was not given to Control group. Vital capacity was measured by Spiro meter test. T-test was the statistical technique. The results of the investigation revealed the significant improvement in vital capacity variable which was tested on 0.01 level of significance.

Keywords: Breathing, Physical Capacity, Sprint and Yoga

INTRODUCTION

In today's life people adopt Yoga in their lifestyle due to its beneficial effects on body organism. Yoga word derived from Sanskrit word "YUJ" which means unity and 'Kapalbhathi' is also a Sanskrit word 'Kapal' means forehead and 'Bhat' means light. It is a form of breathing exercise in which the process of inhale is slow but the process of exhale is vigorous and it improves the capacity of lungs. Kapalbhathi Pranayama also helps to reduce abdominal fat, fight obesity, tone abdominal muscles etc. and it also reduces the stress and depression of the individual. Prof. Smita. S. Survase studied the effect of pranayama on vital capacity and its correlation with performance in sprint event of female athlete. Two hundred female athletes were the sample of the study hundred subjects in experimental and hundred in control group. Experimental group perform pranayama one hour for 3 months and in that hour control group performed free activity. Pre test and post test was taken by the researcher and t test was the statistical technique and results revealed the significant improvement in vital capacity.

METHOD AND MATERIAL

In this study there were twenty subjects selected through the purposive random sampling technique from Lovely Professional University as the sample of the study which was divided into two experimental groups and each group has 10 subjects. The age of the sample was 18 to 25 years. The experimental group performed Kapalbhathi training program for 10 weeks and no physical activity performed by the control group.

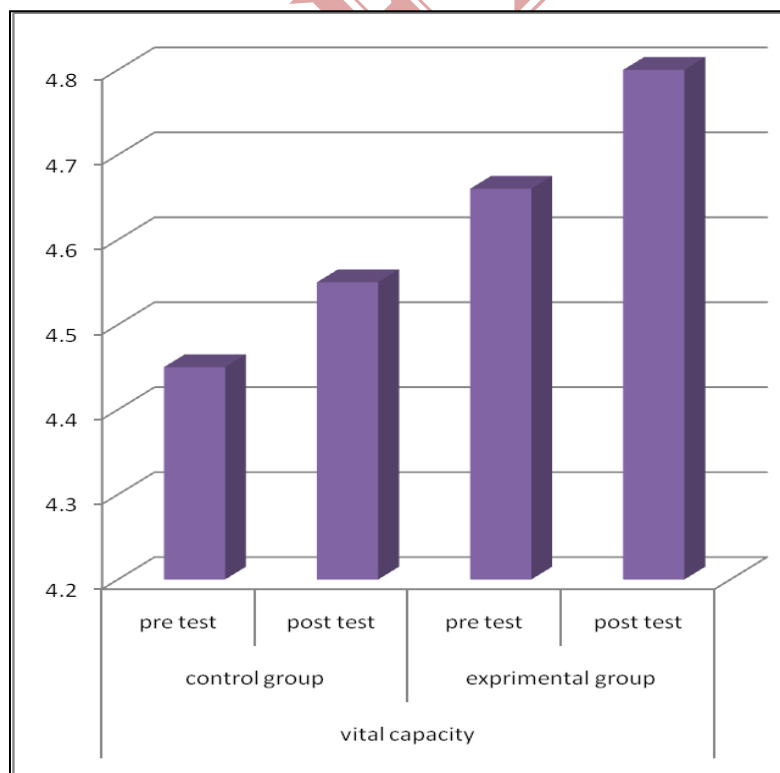
RESULTS

TABLE No.1
SIGNIFICANCE DIFFERENCE IN MEAN BETWEEN THE PRE AND POST TEST SCORE OF
EXPERIMENTAL AND CONTROL GROUPS ON THE VARIABLE OF VITAL CAPACITY

| Group | No | Mean | S.D. | df | 't' Value |
|--------------------------|----|------|-------|----|-----------|
| Experimental (Pre-test) | 10 | 4.66 | 0.810 | | 3.77 * |
| Experimental (Post-test) | | 4.80 | 0.801 | 9 | |
| Control (Pre-test) | 10 | 4.45 | 0.715 | 9 | 1.94 |
| Control (Post-test) | | 4.55 | 0.696 | | |

*Significant at 0.01 level 't' (9) = 2.88

Table No.1 show the comparison of pre and post test score of experimental and control group respectively. Where the mean score of pre and posttest of experimental group is 4.66 and 4.80 and standard deviation is 0.810 and 0.801. The t value 3.77 is found to be significant at 0.01 level of significance which shows that the Vital Capacity of experimental group after the training 10 week of Kapalbhathi is slightly higher than the pretest of the same group. The table further shows the comparison of pre and post test score of control group. Where the mean score of pre and post test of control group is 4.45 and 4.55 and standard deviation is 0.715 and 0.696. The t value 1.94 is found to be not significant at any level of significance. Experimental group performed better on the variable vital capacity. So hypothesis two which state that there is significant effect on Kapalbhathi on vital capacity is accepted.



CONCLUSION

Treatment of kapalbhati indicate increase in vital capacity. When t Test was applied on both group, Experimental group showed significant improvement in comparison to Control group on the variable vital capacity.

REFERENCE

- Bhogal, R.S., Kulkarni, D.D., & Bera, T.K. (1999) Effect of meditation in 'Shiva Samhita' preceded by Omkar on reducing time and selected biochemical and hematological parameter: A pilot study. *Yoga Mimamsa* Vol. XXX, 4, pp. 10-28.
- Bal, S., Kanwaljeet, K. Parminder (2009) Effects of kapalbhati on peak expiratory flow rate and pulse rate. *International Journal of Sports Science and Engineering*, 3(2), 77-84.
- Despande, R.R., Bhole, M.V. (1982). Effect of Kapalbhati on some Constituents of blood. *Yoga Mimamsa*, Vol. XXI, 1 & 2, pp. 13-20.
- Govindarajulu, N., Shivanandanam, G. & Bera, T.K. (2004). Effect of Yoga Training on Biochemical Changes in Normal College Students. *Yoga-Mimamsa*, Vol. XXXVI, 1 & 2, pp. 1-10.
- Gore, M. M., Gharote, M. L. and Raya Purkar M. V. (2008). "Effect of 10 minutes Kapalbhati on Some Physiological Functions". *Yoga Mimamsa* , Vol. 18(2), 87-94.
- Ramdev, (2007) Article on Effect of Kapalbhati on Physiological Functions. Web site: <http://www.indianetzone.com>
- Smita . S. Survase (2003) Effect of Pranayama On Vital Capacity And Its Correlation With Performance In Sprint Event of Female Athletes, College of Education Barshi, *Indian Streams Research Journal* ISSN:- 2230-7850.