



IMPACT OF PRANAYAMA, KAPALAPATHI AND NEURO MUSCULAR BREATHING EXERCISE ON IMPROVING VITAL CAPACITY AMONG GIRL STUDENTS

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ABSTRACT :

The present study was conducted to view pranayama, kapalapathy and neuro muscular breathing exercise on improving vital capacity among girl students. For the study, 60 school girls from Chennai were selected as subjects. Their age ranged between 14 to 16 years. The subjects have been divided into three groups each consisting of 20 members. Experimental Group I went on pranayama, Kapalapathy with neuro muscular training; Experimental Group II went on pranayama and Kapalapathy only for 8 weeks. Controlled Group were not given any kinds of practices. The study showed a significant improvement in the vital capacity of the Experimental Groups I, II subjects than Controlled Group. Through the pranayama, Kapalapathy and neuro muscular practices their breathing capacity has been improved a lot. It has been concluded that pranayama, Kapalapathy and neuro muscular helped in improving the vital capacity and increased their breathing.



KEYWORDS : Breath Capacity, Vital Capacity, Pranayama, Kapalapathy, Neuro Muscular.

INTRODUCTION

Yoga is process oriented activity in which what you experience is much more important than what you achieve. So it is not a goal accomplishing mission. Pranayama can be called the singular most important aspect of yoga as they are means to purify the subtle energies flowing through the body. Yogic breathing techniques are an effective tool to calm, energize, harmonies and tranquillize the body and mind. All poses are to be properly coordinated with inhalation, exhalation and holding of breath. Breathing patterns if not followed correctly could result in the asana not having its desired effect. There is nothing more interesting than watching the workings of your own mind. By awakening the beginner's mind through the practice of yoga and meditation, we learn about ourselves and our perceptions that create the world.

SIGNIFICANCE OF THE STUDY

1. The exercise doesn't harm any part of the body.
2. This study would create awareness about the efficiency of Yoga on maintaining our physical health.
3. This study would create awareness about mental health problems among general public.

OBJECTIVES OF THE STUDY

The objective behind this study is to spread awareness of the benefits of Yoga Living with a healthy body and a peaceful mind. We want to try and reach as many people as possible and bring to them this divine gift called "Yoga". Yoga provides positive manner of physical exercise which corrects them and guides throughout their lifetime. This study was conducted to view the influence pranayama, kapalapathy and neuro muscular on vital capacity among girl students which intently improves their health.

HYPOTHESIS

1. There is significant difference in vital capacity variable in-between pranayama, kapalapathy and neuro muscular practicing group and only pranayama, kapalapathy than control group.

LIMITATIONS

- The heredity problems were not taken into consideration.
- The food habits, working period, life style, sleep etc., were not controlled.
- Daily routine works were not considered for this study.

SELECTION OF THE SUBJECTS

For the study, 60 school girls from Chennai were selected as subjects. Their age ranged between 14 to 16 years. The subjects have been divided into three groups each consisting of 20 members. Experimental Group I went on pranayama, Kapalapathy with neuro muscular training; Experimental Group II went on pranayama and Kapalapathy only for 8 weeks for all 5 days in a week. Controlled Group was not given any kinds of practices.

VARIABLES:

INDEPENDENT VARIABLES

Yoga practices of

- Pranayama
- Kapalapathy
- Neuro muscular breathing exercise

DEPENDENT VARIABLES

- Vital Capacity

Purpose

To measure lung volume

Equipment's and materials

Wet Spiro meter, mouthpieces and nose clips.

Description

Vital capacity was measured by means of wet Spiro meter consisted of six-liter container, filled with water upon one inch from the land balanced by a chain, which passed over a free running pulley. The Wet Spiro meter was placed at a height that allowed the subject to stand erect, before the test, each subject was asked to take the slowly and forcefully expelled all too possible air into the rubber house through the mouth piece. There was taken to prevent air from escaping through the nose by using nose clips. The point of the indicator at the top of the drum indicated volume of air expelled in cubic centimeter. It was ensured that assured breath was not taken by the subject during the test. There was taken to lower drum without spilling the water each time after use.

Scoring

Three trails were given and the test was recorded in cubic centimeter.

RESULT AND ANALYSIS

For statistical analysis the data gathered from the pre-test and the post test on vital capacity of experimental groups and control group have been existed in Table I

Table 1: Analysis of Covariance for the pre-test and post test data on vital capacity

TEST	GROUP1	GROUP2	GROUP3	df	SS	MOS	F value
Pre	28.2	28.15	27.65	2	3.7	1.85	10.14*
				57	1070.3	18.77	
Post	50.1	37.85	31.05	2	3728.03	1864.01	53.46*
				57	1987.3	34.86	
Adjusted	50.01	37.77	31.21	2	3626.77	1813.39	58.52*
				56	1735.24	30.98	

**Significance at 0.05 level.*

Table-1 shows that the adjusted post-test means values of vital capacity for Experimental Group I & II and Control Group are 50.01, 37.77 and 31.21 respectively. The attained F-ratio of 58.52 for adjusted posttest mean is much higher than the table value of 3.16 for df 2 and 56 required for significant at 0.05 level of confidence.

The outcomes of the study point out that there are substantial differences among the adjusted post-test means of Experimental Group I & II Group and Control Group on the Vital capacity.

To conclude which of the paired means had a substantial difference, the Scheffe’s test was applied as Post hoc test and the results are presented in Table-2.

Table 2: Scheffe’s Test for the Variances between the Adjusted Post-Test Paired Means on Vital Capacity

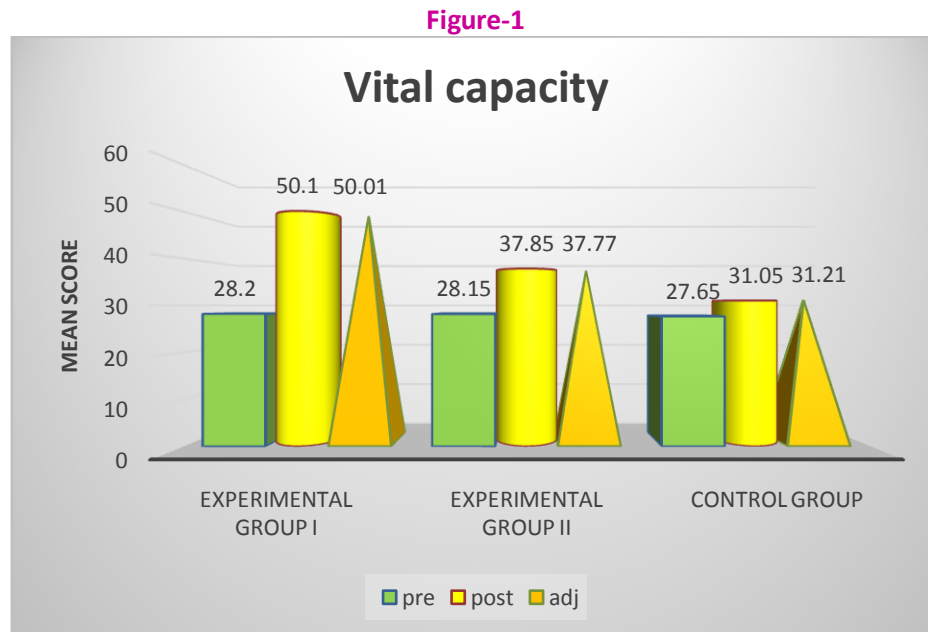
Groups			Mean	CD
EXP Group1	EXP Group2	CNT Group		
50.01	37.77		12.22*	6.07*
50.01		31.21	18.78*	
	37.77	31.21	6.55*	

** Significant at .05 level.*

Table-2 depicts that the adjusted post-test means differences on Experimental Group I and Experimental Group II, Experimental Group I and Control Group Experimental Group II and Control Group are 12.22, 18.78 and 6.07 respectively. The value 6.07 which shows major differences at 0.05 level of confidence.

It could be determined from the results of the study that there is a significant difference in Vital capacity between groups. However, the improvements in the Vital capacity were significantly higher for pranayama, Kapalapathy with neuro muscular training than pranayama and Kapalapathy only practicing Group and Control Group. It could be also seen that pranayama, Kapalapathy with neuro muscular has improvement in vital capacity than Control Group.

The mean and adjusted values of pre and posttest of Experimental Group I & II Group and Control Group on vital capacity are graphically represented in the Figure-1.



CONCLUSIONS

Based on the final result of the study the following conclusions were drawn.

1. There was a major difference between Experimental group I and II when compared to the control group on physiological variables of Vital capacity.
2. Pranayama, Kapalopathy with neuro muscular was found to be better than pranayama and kapalopathy only practicing group and control group in physiological variables of Vital capacity.

RECOMMENDATIONS

1. A similar study may be conducted by selecting boys as subjects.
2. A similar study may be conducted by selecting other variables as criterion variables.
3. A related study may be endeavored by selecting other psychological variable for the subjects.

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