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A COMPARATIVE STUDY BETWEEN PRANAYAMA AND BREATHING EXCERCISES

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Abstract
Yoga is an ancient system of self-development through which union occurring between the mind, body and spirit. Yoga is a science and is immensely useful for promoting total health, which may assist in achieving recommended levels of physical activity for some individuals. Type of sampling was simple random sampling, consist of 60 obese women. Group A consisted of 30 and Group B consisted of 30. A written informed consent was taken from all the subjects. Purpose of the study and procedure were explained to the subjects. Subjects in the age group of 35 to 45 were included in the study and were randomly divided into two groups. Group A (n=30) and Group B (n=30). All the values obtained before and after performing Pranayama, and breathing exercises were expressed as mean ± SD. The data were analyzed by SPSS 32.0 version one way ANOVA followed by student's t test which was used to compare pre and post training results. P values of less than 0.05 were accepted as significant difference between the compared values.
Keywords: Yoga; **Pranayama;** Breathing Excercises; t test.

Introduction

The cases of stress-related diseases are increasing day by day throughout the world, GBD (Global Burden of Disease) estimates that mental disease, including stress related disorders will be the first leading cause of disability by the year 2020.[1]. Modern man has become a victim of daily stress and stress related disturbances like essential hypertension, angina, insomnia and impotency, yogic techniques are ideal for once ability to withstand stressful stimuli [2]. Yoga is an ancient system of self development through which union occurring between the mind, body and spirit. Yoga is a science and is immensely useful for promoting total health, which may assist in achieving recommended levels of physical activity for some individuals [3]. Exercises in different forms, if performed regularly, have a beneficial effect on the various systems of the body. The modality of exercise that is most beneficial and economic for masses has now become the topic of research. [4] The conventional exercises (endurance exercises like walking, jogging, running, swimming, cycling, etc), which give stress on cardiovascular and respiratory systems and test the responses of these systems, are very popular. On the other hand, ancient yogic exercises which have been claimed to benefit human body on multiple fronts are also getting popularity all over the world.[5]

Materials and Methodology

Study Design:

Type of study was Comparative Study, done in metropolitan city and duration of study was 1 year.

Sample Design:

Type of sampling was simple random sampling, consist of 60 obese women. Group A consisted of 30 and Group B consisted of 30.

Materials Used Materials used were Peak flow meter, measuring tape, weighing machine, chair Selection Criteria Subjects included in this study were women with BMI >25kg/m2 and within age group of 35 to 45.

Subjects with pre-existing respiratory and cardiovascular conditions, neurological conditions, psychological illness, who has history of smoking, uncontrolled hypertension and diabetes mellitus and subjects undergoing any other exercise program were excluded from this study. Procedure Subjects were screened as per the inclusion and exclusion criteria. A written informed consent was taken from all the subjects. Purpose of the study and procedure were explained to the subjects. Subjects in the age group of 35 to 45 were included in the study and were randomly divided into two groups. Group A (n=30) and Group B (n=30).

Subjects of Group A were given anulomaviloma and kapalbhati with frequency of 10 minutes, twice a day, three times in a week, and that was continued for 4 weeks. Subjects of Group B were given conventional breathing exercises i.e. deep breathing exercise and pursed of frequency of 10-15 minutes, twice a day, three times in a week, and that was continued for 4 weeks. On day one PEFR was evaluated by using peak flow meter. Subjects were asked to perform it three times and best of three readings were taken.Revaluations was done on end of 1st

week and on the end of 4th week and recording were taken.

Statistical analysis of data: Analysis of variance (ANOVA) was used in the present research.

Result and Discussion:

Table 1: Pranayama and Breathing Excercises on Selective subjects; Group Means

Parameter	Group A	Group B	Sum
(a1) Pranayama	37.70 N=15	37.36 N=15	73.30
(a2) Breathing Excercises	51.50 N=15	74.83 N=15	126.36
Sum	90.00	112.19	199.66

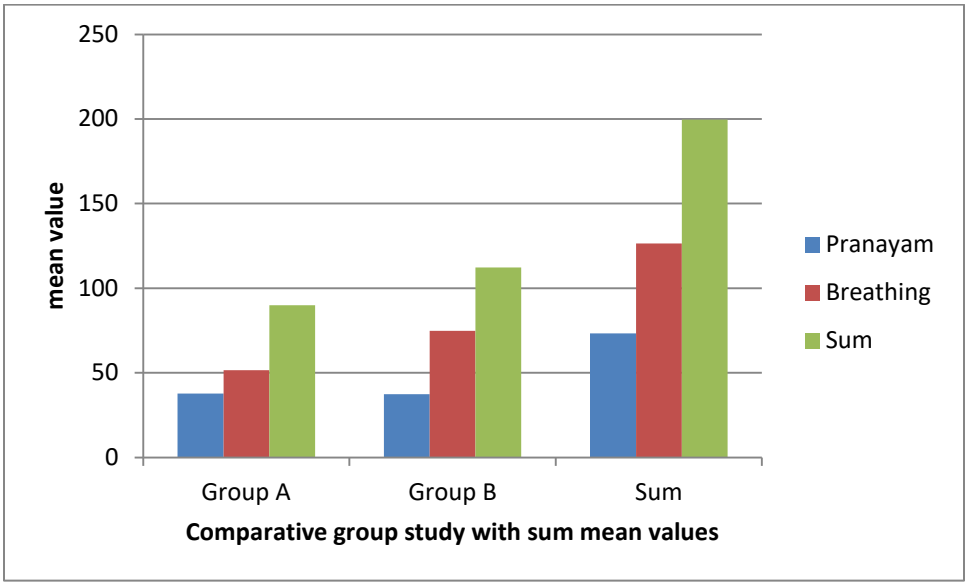

Figure 1: Comparative study of groups

Values are expressed as mean ± SD; *p<0.05 significant,

**p<0.001 highly significan

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Results

All the values obtained before and after performing Pranayama, Suryanamaskar and combined pranayama, suryanamaskar yogic exercises were expressed as mean ± SD.

The data were analyzed by SPSS 22. 0 version one way ANOVA followed by student's t test which was used to compare pre and post training results. P values of less than 0.05 were accepted as significant difference between the compared values. This study was conducted with the purpose of finding out the outcomes of pranayama training, suryanamaskar training and combined training on static spirometrty functions in healthy students.

All the values obtained before and after performing Pranayama, and breathing exercises were expressed as mean ± SD. The data were analyzed by SPSS 32.0 version one way ANOVA followed by student's t test which was used to compare pre and post training results. P values of less than 0.05 were accepted as significant difference between the compared values. This study was conducted with the purpose of finding out the outcomes of pranayama and breathing exercise in healthy volunteers.

Conclusion

Summing up, the six months yoga training including

pranayama and suryanamaskar had significant effect on SVC, IRV, ERV and TV. Thus, such training may be recommended to improve physical and physiological fitness-based performance. The positive results found in the present study might apply to sports persons to improve physiological efficiency. A few minutes practice daily may help in maintain healthy life.

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