

# Analysis of Psychological variable Changes Resulting from Aerobic Exercises and Pranayama Practice among College Women

Amrutha A<sup>1</sup>, S Alagesan<sup>2</sup>

**Author Affiliation:** <sup>1</sup>Ph. D Scholar, <sup>2</sup>Associate Professor, Centre for Yoga Studies, Annamalai University, Annamalai Nagar, Chidambaram, Tamil Nadu 608002, India.

**Corresponding Author:** S Alagesan, Associate Professor, Centre for Yoga Studies, Annamalai University, Annamalai Nagar, Chidambaram, Tamil Nadu 608002, India.

**Email:** salagesan1972@gmail.com

## Abstract

The purpose of this study was to determine the “Analysis of Psychological variables Changes Resulting from Aerobic Exercise and Pranayama Practice among college women”. To achieve this purpose the investigator met the people, from Chidambaram randomly selected thirty female subjects. And their age between 16 to 25 years. They were divided into three equal groups namely experimental group I,II and control groups. The experimental groups did training for all eight weeks. The pre and post test were taken for all subjects before and after the training respectively. The data pertaining to the variables in this were examined by using dependent t- test and analysis of covariance (ANCOVA). The eight weeks of selected pranayama practices and Aerobic exercise Reduced the Anxiety level and improved mental health among the computer professional.

**Keywords:** Yoga; Aerobic Exercise; Pranayama Practice.

## How to cite this article:

Amrutha A, S Alagesan/ Analysis of Psychological variable Changes Resulting from Aerobic Exercises and Pranayama Practice among College Women / Indian J Ancien Med Yog. 2021;14(3): 75-77.

## Introduction

Yoga is a system that benefits the body, mind and spirit by teaching self-control through a series of posture and exercise, as well as through breathing, relaxation and meditation technique. Yoga is science which deals with the ranges of the Physical and spiritual being and even discovers greater secrets of Physical, Physiological and other higher relatives and worlds. As in all the things found. There is also in it a high intension to hold the truth the light found in our inner being and turn it to our psychic self, our spirit, our self knowledge and will our self or love and joy our self of life and action.

A form of dance combines calisthenics and variety of dance movement, all done to music is called aerobic dancing. Aerobic dancing is an

exercise consist of a mixture of rhythmic running, hopping, skipping, jumping, sliding, stretching and swinging as well as a number of dance steps the creation of this form of exercise.

## Methodology

The investigator met the college women, Chidambaram selected thirty female subjects were randomly. And their age between 16 to 25 years. They were divided into three equal groups namely experimental group and control groups. The experimental group I underwent pranayama practices and experimental group II underwent Aerobic Exercise weekly five days i.e. Monday to Friday, between 5.00 P.M to 6.00 P.M. for a period of eight weeks, and group III not practicing Pranayama and Aerobic exercises. Anxiety, mental health and



pulse rate were selected as criterion variables all the subjects were tested (Dr C D Spielberger Anxiety Scale, Trier Personality Inventory (TPI) developed by Peter Becker) at prior and immediately after the training period on selected dependent variable. The collected data were analyzed statistically by using analysis variance to find out the significant differences if any between the groups at before and immediately after the training period on selected dependent variable separately. In all cases, .05 level of confidence was fixed to test the significance.

## Analysis of Data

### *Pre and Post Means and Standard Deviation*

#### *Scores on Trait Anxiety*

Groups	N	Tests	Mean	Std. Deviation
Control Group	10	Pre test	46.00	4.784
	10	Post test	46.60	5.295
Aerobic Experimental Group	10	Pre test	46.30	5.222
	10	Post test	42.70	7.056
Pranayamas Experimental Group	10	Pre test	46.40	5.211
	10	Post test	40.20	3.705

The Table 1, shows that there is a marginal difference in pre-test mean on trait anxiety of all three groups, whereas the difference in post-test on trait anxiety level across the groups are remarkable. The post-test mean on trait anxiety means are 46.60, 42.70 and 40.20 for control group, aerobic training group and pranayama training group respectively. It is noted that the trait anxiety is higher for the respondent group with pranayama exercise compared to that of other two groups.

### *Pre and Post Means and Standard Deviation*

#### *Scores on Mental Health*

Groups	N	Tests	Mean	Std. Deviation
Control group	10	Pre test	39.00	8.419
	10	Post test	39.70	8.433
Aerobic Experimental Group	10	Pre test	39.10	8.319
	10	Post test	39.10	8.319
Pranayama Experimental Group	10	Pre test	39.50	9.009
	10	Post test	49.60	6.603

The Table II, shows that there is a marginal difference in pre-test mean on mental health of all three groups, whereas the difference in post-

test on mental health level across the groups are remarkable. The post-test mean on mental health means are 39.70, 39.10 and 49.60 for control group, aerobic training group and pranayama training group respectively. It is noted that the mental health is higher for the respondent group with pranayama exercise compared to that of other two groups.

## Conclusions

Within the limitations of the present study, the following conclusions were drawn. The extent of reduction in the 'trait anxiety' is almost equal between computer professional with aerobic and pranayama training. It is found that the aerobic training and pranayama training are significantly reducing the 'state anxiety' among students and the degree of impact on reducing 'state anxiety' is equal between aerobic training and pranayama training. The aerobic and pranayama training have significant influence on increasing the 'mental health' of students. Increase in 'mental health' through pranayama training is significantly higher than that of through aerobic training. Psychological variables of state anxiety and mental health were significantly improved by aerobic exercises and pranayama for the experimental group when compared to the control group.

## Reference

1. Aurobindo, Letters on yoga. Pondicherry: Reflection on Hindu Spirituality
2. Heritage Publishers, Part II, 1984.
3. Barrow, M. Harrold and McGee, Rose Mary, A Practical Approach to
4. Measurement in Physical Education. Philadelphia: Lea & Febiger, 1979.
5. Basvanne. Manual for Self Confidence Inventory. Varanasi: Chawta Offset Printers, 2003.
6. Bucher, Charles .A. Foundations of Physical Education and Sports. London: C. V. Mosby Company, 1983.
7. Bucher, Charles. A and E William. Practice Fitness for College men
8. Life. Missouri: C.V. Mosby Company Publishing, 1985.
9. De Geus, E. J. et. al, Regular Exercise and Aerobic Fitness in Relation to
10. Psychological Make-Up and Physiological Stress Reactivity. Amsterdam, Netherlands: Vrije Universities, 1993.
11. Albright, C L. "Effect of a Six-Month Aerobic Exercise Training Program on Cardiovascular

- Responsivity in Healthy Middle-Aged Adults".  
The Journal of Psychometric Research 36(1),  
(January 1992).
12. Blumenthal, J. A. et. al. "Aerobic Exercise Reduces  
Levels of Cardio-vascular and Sympatho Adrenal  
Responses to Mental Stress in Subjects Without  
Prior Evidence of Myocardia Ischemia".  
The American Journal of Cardiology 65(1),  
(January1990).
13. Blumenthal, J. A. et. al. "Aerobic Exercise Reduces  
Levels of Cardiovascular and Sympathoadrenal  
Responses to Mental Stress in Subjects without  
Prior Evidence of Myocardial Ischemia"  
Psychological Report 99(2), (October 2006).

