

## EFFECT OF YOGA ON SELECTED PHYSIOLOGICAL VARIABLES AMONG COLLEGE WOMEN STUDENTS

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### ABSTRACT

*The purpose of the study was to find out the effect of yoga on selected physiological variables among college women students. It was hypothesized that there would be significant differences on selected physiological variables due to the effect of yoga among college women students. For the present study the 30 college women students from Sri Sarada College of Physical Education for Women, Salem, Tamilnadu were selected at random and their age ranged from 18 to 21 years. For the present study pre test – post test random group design which consists of control group and experimental group was used. The subjects were randomly assigned to two equal groups of fifteen each and named as Group 'I' and Group 'II'. Group 'I' underwent yoga training and Group 'II' has not undergone any training. The selected variables were assessed by bio-monitor. The data was collected before and after twelve weeks of training. The data was analyzed by applying dependent 't' test. The level of significance was set at 0.05. The results of the study showed that the experimental group that practiced yoga exercises reduced the selected physiological variables than the control group.*

**KEYWORDS:** Yoga, Physiological Variables, College Students.

### INTRODUCTION

Yoga represents the study, path and the means to proceed and also the absolute aim, which includes the following core concepts: the union of opposites, the effect the outside world has on the body, the yearning for and seeking of form of liberation; the merging of the individual consciousness with the Universal consciousness and the interest of discovering and attaining one's true self. Yoga has shown through its long history that it represents the effort that we are going to make in achieving something, the path that will take us to the ultimate achievement and the progress that we are going to make along the way, and ultimately, the end result: the sum of total of our achievements. Experiencing life with awareness, with exposure to great depths of Yogic literature, reinforces my motivation and provides the drive to devote the effort required to follow the Yogic path. The science of yoga works on physical, mental, emotional, psychic and spiritual aspects of a person. When imbalance is experienced at this level, the organs, muscles and nerves no longer function in harmony, rather they are in opposition to each other. Therefore yoga aims at bringing the different bodily functions into perfect co-ordination so that they work for the good of the whole body. Yoga is one of India's wonderful gifts to mankind. One of its valuable qualities is that it builds up a store of physical health through the practice of a system of exercises called asanas which keep the body cleansed and fit. Yoga believes that exercise is essential for speedy removal of toxins and for keeping blood circulation and all internal processes functioning smoothly. Yoga is a science and it is based on observation and experiment. This method of observation and experiment is regarded in the west as a distinctly modern innovation, but as a matter of fact it was adopted in India in very ancient time by the 'ishis. Through the process of close observation and constant experiment they discovered the fine forces of nature, as also the laws that govern our physical, mental and spiritual being.

## METHODOLOGY

The purpose of the study was to find out the effect of yoga on selected physiological variables among college women students. It was hypothesized that there would be significant differences on selected physiological variables due to the effect of yoga among college women students. For the present study the 30 college women students from Sri Sarada College of Physical Education for Women, Salem, Tamilnadu were selected at random and their age ranged from 18 to 21 years. For the present study pre test – post test random group design which consists of control group and experimental group was used. The subjects were randomly assigned to two equal groups of fifteen each and named as Group 'I' and Group 'II'. Group 'I' underwent yoga training and Group 'II' has not undergone any training. The selected variables were assessed by bio-monitor. The data was collected before and after twelve weeks of training. The data was analyzed by applying dependent 't' test. The level of significance was set at 0.05.

## RESULTS

**TABLE I**  
**DESCRIPTIVE ANALYSIS OF PRE TEST AND POST TEST MEANS OF**  
**EXPERIMENTAL AND CONTROL GROUP ON PHYSIOLOGICAL VARIABLES**

S.No	Variables	Pre Test Mean	Post Test Mean
1	Diastolic Blood Pressure	Exp:84.60	Exp:80.00
		Con:84.93	Con:84.46
2	Systolic Blood Pressure	Exp:125.26	Exp:121.00
		Con:125.25	Con:124.80
3	Heart Rate	Exp:78.06	Exp:72.46
		Con:78.13	Con:77.86

**TABLE II**  
**COMPUTATION OF 'T' RATIO BETWEEN THE PRE TEST AND POST TEST**  
**MEANS OF DIASTOLIC BLOOD PRESSURE OF EXPERIMENTAL AND CONTROL**  
**GROUPS**

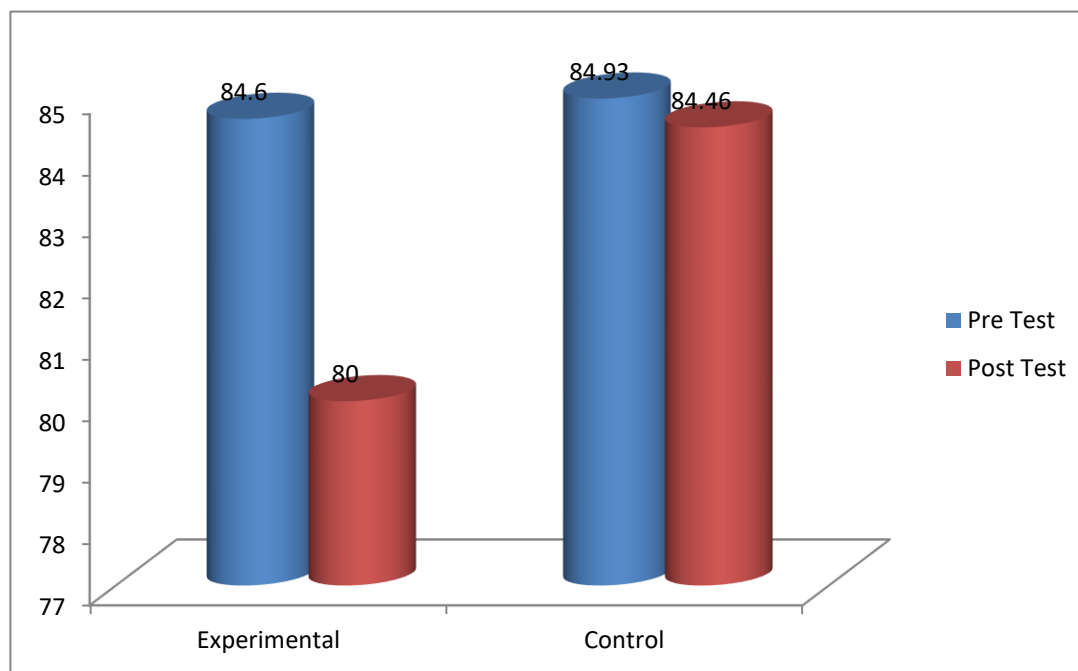
Variables	Group	Mean diff	SD	$\sigma$ DM	't' ratio
Diastolic Blood Pressure	Experimental	4.60	1.80	0.46	9.87*
	Control	0.46	2.66	0.68	0.67

\*Significant at 0.05 level

An examination of table II indicates that the obtained 't' ratio was 9.87 on diastolic blood pressure of experimental group was found to be greater than the required table value of 2.14 at 0.05 level of significance for 14 degrees of freedom. So it was found to be significant. The results of this study showed that 6 weeks practice of yogic exercises produced a significant improvement in diastolic blood pressure. Hence the formulated hypothesis related to this was accepted. The obtained 't' ratio was 0.67 on diastolic blood pressure of control group were found

to be lesser than the required table value of 2.14 at 0.05 level of significance for 14 degrees of freedom. So it was found to be not significant. The mean scores of diastolic blood pressure of experimental and control group were shown graphically in figure I.

**FIGURE I**  
**BAR DIAGRAM SHOWING THE PRE MEAN AND POST MEAN OF DIASTOLIC BLOOD PRESSURE OF EXPERIMENTAL AND CONTROL GROUPS**



**TABLE III**  
**COMPUTATION OF 'T' RATIO BETWEEN THE PRE TEST AND POST TEST MEANS OF SYSTOLIC BLOOD PRESSURE OF EXPERIMENTAL AND CONTROL GROUPS**

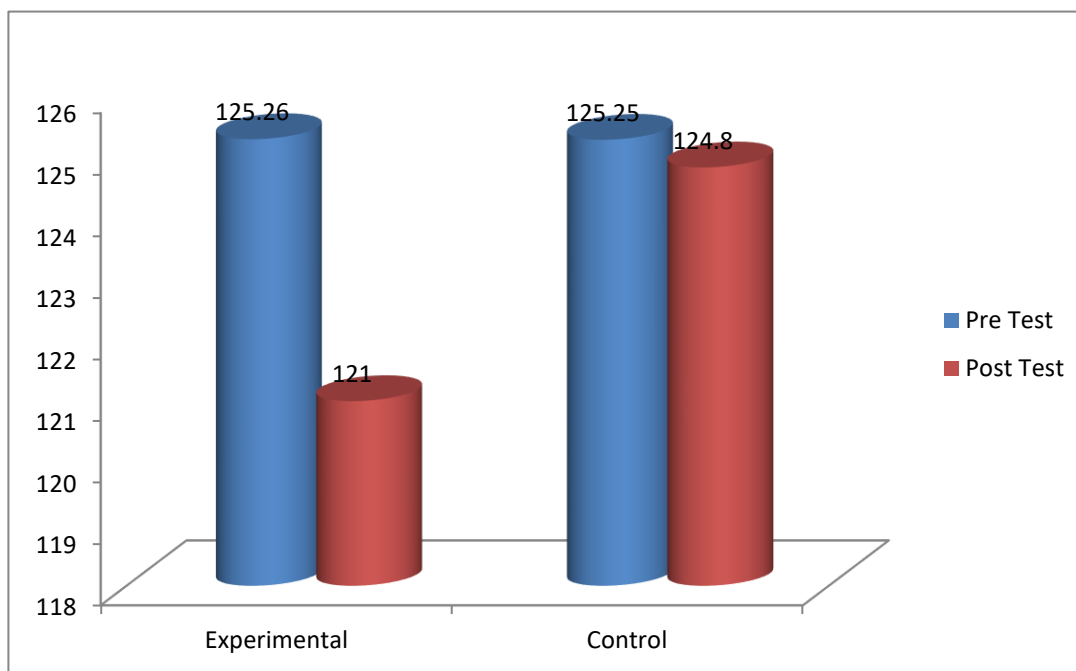
Variables	Group	Mean diff	SD	$\sigma$ DM	't' ratio
Systolic Blood Pressure	Experimental	4.26	2.43	0.62	6.78*
	Control	0.46	2.16	0.55	0.83

\*Significant at 0.05 level

An examination of table III indicates that the obtained 't' ratio was 6.78 on systolic blood pressure of experimental group was found to be greater than the required table value of 2.14 at 0.05 level of significance for 14 degrees of freedom. So it was found to be significant. The results of this study showed that 6 weeks practice of yogic exercises produced a significant improvement in systolic blood pressure. Hence the formulated hypothesis related to this was accepted. The obtained 't' ratio was 0.83 on systolic blood pressure of control group were found

to be lesser than the required table value of 2.14 at 0.05 level of significance for 14 degrees of freedom. So it was found to be not significant. The mean scores of systolic blood pressure of experimental and control group were shown graphically in figure II.

**FIGURE II**  
**BAR DIAGRAM SHOWING THE PRE MEAN AND POST MEAN OF SYSTOLIC BLOOD PRESSURE OF EXPERIMENTAL AND CONTROL GROUP**



**TABLE IV**  
**COMPUTATION OF 'T' RATIO BETWEEN THE PRE TEST AND POST TEST MEANS OF HEART RATE OF EXPERIMENTAL AND CONTROL GROUPS**

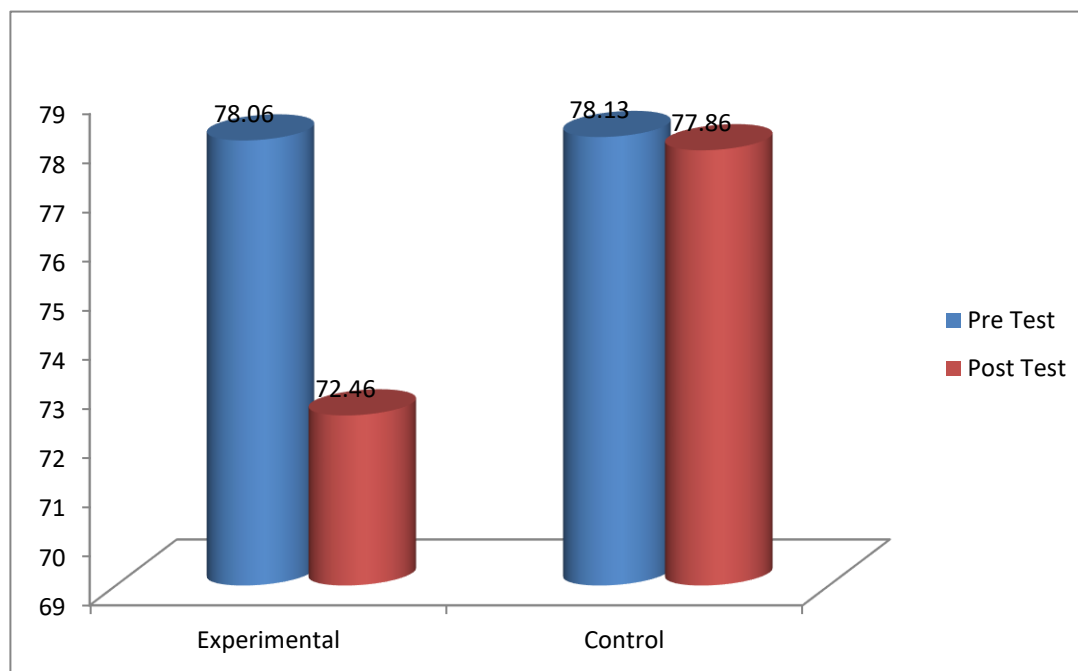
Variables	Group	Mean diff	SD	$\sigma$ DM	't' ratio
Heart Rate	Exp	5.60	1.63	0.42	13.23*
	Con	0.26	1.90	0.49	0.54

\*Significant at 0.05 level

An examination of table IV indicates that the obtained 't' ratio was 13.23 on heart rate of experimental group was found to be greater than the required table value of 2.14 at 0.05 level of significance for 14 degrees of freedom. So it was found to be significant. The results of this study showed that 6 weeks practice of yogic exercises produced a significant improvement in heart rate. Hence the formulated hypothesis related to this was accepted. The obtained 't' ratio was 0.54 on heart rate of control group were found to be lesser than the required table value of

2.14 at 0.05 level of significance for 14 degrees of freedom. So it was found to be not significant. The mean scores of heart rate of experimental and control group were shown graphically in figure III.

**FIGURE III**  
**BAR DIAGRAM SHOWING THE PRE MEAN AND POST MEAN OF HEART RATE**  
**EXPERIMENTAL AND CONTROL GROUP**



## CONCLUSION

1. The results of the study showed that the experimental group that practiced yoga exercises reduced the selected physiological variables than the control group.

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