



INFLUENCE OF YOGA ON SELECTED PHYSIOLOGICAL VARIABLES AMONG PHYSICAL EDUCATION STUDENTS

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Abstract

The purpose of the study was to find out the influence of yoga on selected physiological variables among physical education students. It was hypothesized that there would be significant differences on selected physiological variables due to the effect of yoga among physical education students. For the present study the 30 male physical education students from Alagappa University College of Physical Education, Karaikudi, Tamilnadu were selected at random and their age ranged from 18 to 25 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 'A' and Group 'B'. Group 'A' underwent yoga and Group 'B' has not undergone any training. The data was collected before and after six weeks of training. The data was analyzed by applying ANCOVA test. The level of significance was set at 0.05. The yoga group had significantly reduced systolic and diastolic blood pressure among physical education students than the control group.

Keywords: Yoga, Blood Pressure, Physical Education Students.

INTRODUCTION

Yoga derives its philosophy from Indian metaphysical beliefs. The word yoga comes from Sanskrit language and means union or merger. The ultimate aim of this philosophy is to strike a balance between mind and body and attain self-enlightenment. To achieve this, yoga uses movement, breath, posture, relaxation and meditation in order to establish a healthy, lively and balanced approach to life. Though the exact origins of Yoga are unknown but Yoga is considered to be the oldest physical discipline in existence. Yoga, thus symbolizes balance in every area of life. In the earlier times, the rationale of the Yoga postures and breathing exercises was to bring stability and relaxation so that practitioners could prepare for the rigors of meditation, sitting still and alert for long periods of time. In modern context also Yoga can play an important role in maintaining a fine balance between work and healthy mind.

Yoga is a science of right living and it works when integrated in our daily life. It works on all aspects of the person: the physical, mental, emotional, psychic and spiritual. The word yoga means 'unity' or 'oneness' and is derived from the Sanskrit word 'yuj' which means 'to join'. There are too many misconceptions clouding the science of Yoga. People perceive it to be some kind of black or white magic, sorcery, physical or mental debauchery through which miraculous feats can be performed. For some it is an extremely dangerous

practice which should be limited to only those who have renounced the world. Few others think it to be a kind of mental and physical acrobaticism that is compatible only to a Hindu mind. Human mind is subject to certain weaknesses which are universal. Avidya wrong notions of the external world, asmita wrong notions of oneself, raga-longing and attachment for sensory objects and affections, dweshad is like and hatred for objects and persons, and abinivesha or the love of life are the five defects of the mind that must be removed. Yoga, the constant meditation and introspection eradicate these mental flaws.

METHODOLOGY

The purpose of the study was to find out the influence of yoga on selected physiological variables among physical education students. It was hypothesized that there would be significant differences on selected physiological variables due to the effect of yoga among physical education students. For the present study the 30 male physical education students from Alagappa University College of Physical Education, Karaikudi, Tamilnadu were selected at random and their age ranged from 18 to 25 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 'A' and Group 'B'. Group 'A' underwent

yoga and Group 'B' has not undergone any training. The data was collected before and after six weeks of training. The data was analyzed by

applying ANCOVA test. The level of significance was set at 0.05.

**TABLE I
VARIABLES AND TEST**

S.No	Variables	Tests
1	Systolic Blood Pressure	Sphygmomanometer
2	Diastolic Blood Pressure	

RESULTS

The findings pertaining to analysis of ANCOVA test between experimental group and

control group on selected physiological variables among college men for pre-post test respectively have been presented in table II to III.

**TABLE II
COMPUTATION OF ANALYSIS OF COVARIANCE OF MEAN OF YOGA AND CONTROL GROUPS
ON SYSTOLIC BLOOD PRESSURE**

	Yoga Group	Control Group	Source of Variance	Sum of Squares	df	Means Squares	F-ratio
Pre-Test Means	123.86	123.13	BG	4.03	1	4.03	1.03
			WG	109.46	28	3.91	
Post-Test Means	120.00	122.40	BG	43.20	1	43.20	12.92*
			WG	93.60	28	3.34	
Adjusted Post-Test Means	120.00	122.39	BG	41.01	1	41.01	11.84*
			WG	93.52	27	3.46	

(Table Value for 0.05 Level for df 1 & 28 = 4.19)

(Table Value for 0.05 Level for df 1 & 27 = 4.21)

df- Degrees of Freedom

An examination of table II indicated that the pretest means of yoga and control groups were 123.86 and 123.13 respectively. The obtained F-ratio for the pre-test was 1.03 and the table F-ratio was 4.19. Hence the pre-test mean F-ratio was insignificant at 0.05 level of confidence for the degree of freedom 1 and 28. The post-test means of the yoga and control groups were 120.00 and 122.40 respectively. The obtained F-ratio for the post-test was 12.92 and the table F-ratio was 4.19. Hence the pre-test mean F-ratio was significant at

0.05 level of confidence for the degree of freedom 1 and 28. The adjusted post-test means of the yoga and control groups were 120.00 and 122.39 respectively. The obtained F-ratio for the adjusted post-test means was 11.84 and the table F-ratio was 4.21. Hence the adjusted post-test mean F-ratio was significant at 0.05 level of confidence for the degree of freedom 1 and 27. The pre, post and adjusted post test mean values of yoga and control groups, on systolic blood pressure are graphically represented in the figure I.

FIGURE I
PRE AND POST TEST DIFFERENCES OF THE YOGA AND CONTROL GROUPS ON SYSTOLIC BLOOD PRESSURE

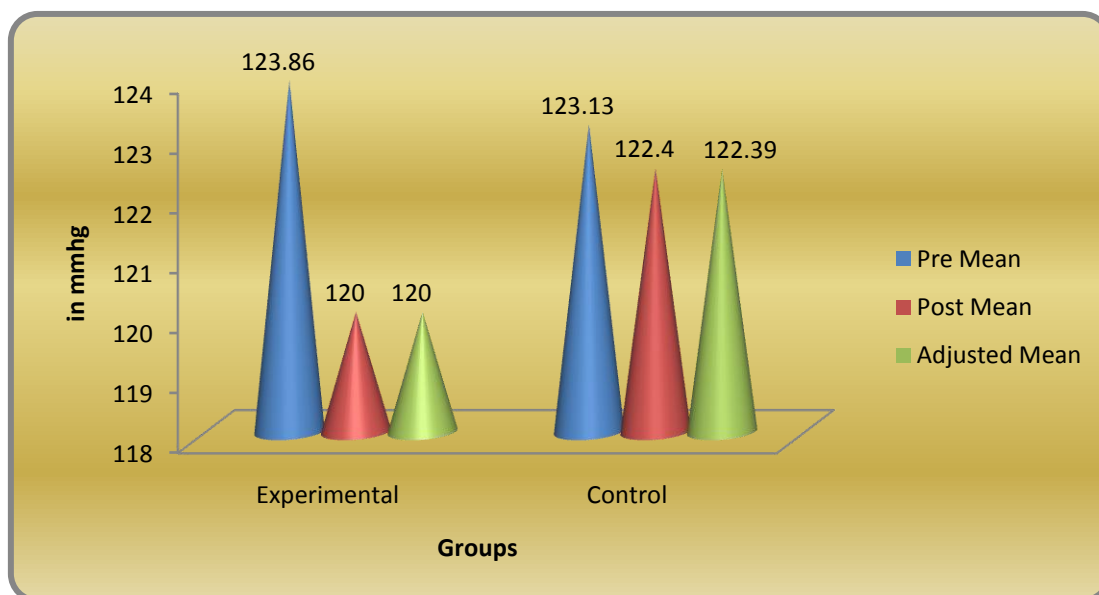


TABLE III

COMPUTATION OF ANALYSIS OF COVARIANCE OF MEAN OF YOGA AND CONTROL GROUPS ON DIASTOLIC BLOOD PRESSURE

	Yoga Group	Control Group	Source of Variance	Sum of Squares	df	Means Squares	F-ratio
Pre-Test Means	83.33	84.00	BG	3.33	1	3.33	0.70
			WG	133.33	28	4.76	
Post-Test Means	80.33	83.73	BG	86.70	1	86.70	38.98*
			WG	62.26	28	2.22	
Adjusted Post-Test Means	80.36	83.70	BG	81.54	1	81.54	36.01*
			WG	61.12	27	2.26	

(Table Value for 0.05 Level for df 1 & 28 = 4.19)
 (Table Value for 0.05 Level for df 1 & 27 = 4.21)

df- Degrees of Freedom

An examination of table III indicated that the pretest means of yoga and control groups were 83.33 and 84.00 respectively. The obtained F-ratio for the pre-test was 0.70 and the table F-ratio was 4.19. Hence the pre-test mean F-ratio was insignificant at 0.05 level of confidence for the degree of freedom 1 and 28. The post-test means of the yoga and control groups were 80.33 and 83.73

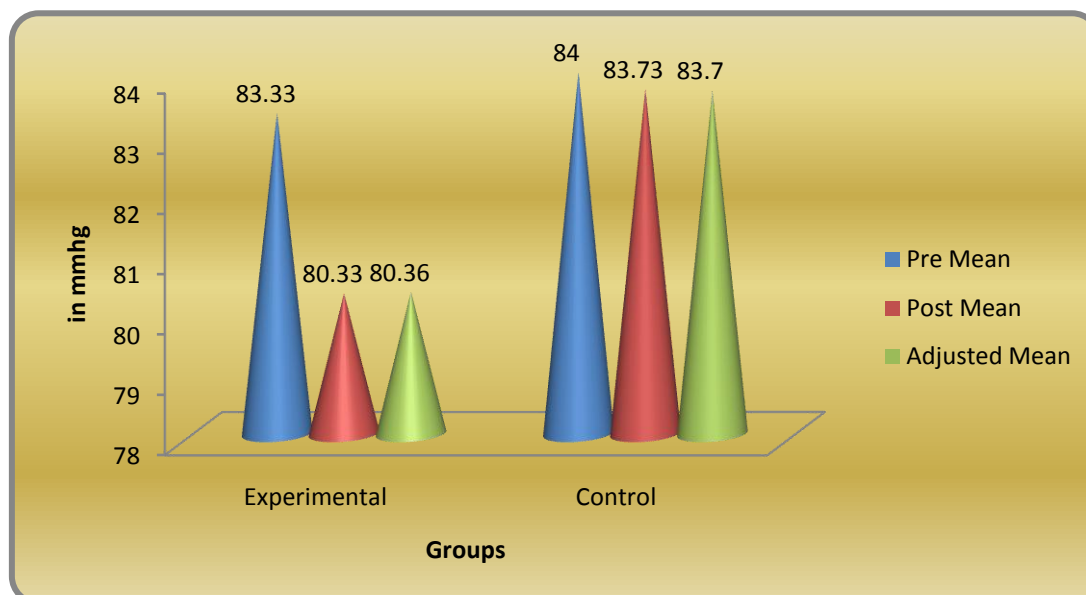
respectively. The obtained F-ratio for the post-test was 38.98 and the table F-ratio was 4.19. Hence the pre-test mean F-ratio was significant at 0.05 level of confidence for the degree of freedom 1 and 28. The adjusted post-test means of the yoga and control groups were 80.36 and 83.70 respectively. The obtained F-ratio for the adjusted post-test means was 36.01 and the table F-ratio was 4.21.

Hence the adjusted post-test mean F-ratio was significant at 0.05 level of confidence for the degree of freedom 1 and 27. The pre, post and

adjusted post test mean values of yoga and control groups, on diastolic blood pressure are graphically represented in the figure II.

FIGURE II

PRE AND POST TEST DIFFERENCES OF THE YOGA AND CONTROL GROUPS ON DIASTOLIC BLOOD PRESSURE



CONCLUSION

On the basis of findings and within the limitations of the study the following conclusion was drawn:

1. The yoga group had significantly reduced systolic and diastolic blood pressure among physical education students than the control group.

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