



## Changes in Cardiovascular Risk Factors of College Men Players after Twelve weeks of Isolated and Combined Brisk walking and Yogic Practices

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### ABSTRACT

*Aim of the study was to find out the effects of isolated and combined brisk walking and yoga practices on selected cardiovascular Risk factors of college men players. Hypothesis: there is a significant difference between selected Cardiovascular Risk Factors among the experimental groups. Sample: For the present study 45 Sample were belonging to Alagappa Government Arts College, Karaikudi, Tamilnadu were selected. The selected players were assigned in to three groups of fifteen each (n=15). The age range of subjects was 18-21 years. Random sampling technique was used. Training Protocol: Group-I underwent brisk walking, Group II underwent Yogic practices, and Group III underwent Combined brisk walking and yogic practices for a period of 12 weeks. Variables: Among various Cardiovascular Risk Factors Blood pressure (Systolic Blood Pressure and Diastolic Blood Pressure) only selected for this study. Tools: Blood pressure was measure through Sphygmomanometer Statistical Technique: Analysis of Covariance (ANCOVA) was applied. Whenever the 'F' ratio for adjusted post test means was found to be significant, Scheffe's post hoc test was followed to determine which of the paired mean differences was significant. In all the cases 0.05 level of confidence was fixed to test the hypotheses. Results: 1) Experimental groups had registered significant improvement on the selected criterion variables namely Systolic Blood Pressure and Diastolic Blood Pressure*

*2) combined brisk walking and yogic practices group is better than brisk walking and yogic practices group in decreasing Blood Pressure and Diastolic Blood Pressure.*

**KEYWORDS : Brisk walking, Yogic practice, Blood Pressure and Diastolic Blood Pressure**

### INTRODUCTION

It is a known fact that adding regular physical activity to one's daily routine will improve health and well-being. Physical activity does not necessarily need to be strenuous for a person to enjoy the benefits of health. Of course, by increasing the amount of physical activity (within reasonable limits), one can increase the benefits reaped.

Fitness is a state which often characterizes the degree to which a person is able to function. Ability to function depends upon the physical, mental, emotional, social and spiritual components of fitness, all of which are related to total fitness. While fitness is the maximal, economical and efficient functioning of the body, health is referred to as optimal homeostatic functioning of the body.

Fitness is perhaps one of the most controversial aspects in the field of measurement in physical education. It is most elusive quality and has been frequently defined in rather abstract terms. In the dictionary 'Fitness' is defined as having the necessary qualities or a readiness or preparedness. Fitness is operationalized in present day Western Societies with a focus on two goals; performance and health. Performance related fitness refers to those components of fitness that are necessary for optional work to work performance (Bouchard, 1994).

In Sanskrit, Yoga means, "to unite." Primarily an exercise in moral and mental cultivation of poses and practices that aim towards harmonizing your mind, body and soul to achieve a state of oneness with the universe. It is a spiritual practice that does not subscribe nor promote any particular faith; hence all can practice it. A lifestyle choice by many, the universally timeless philosophies of yoga can be incorporated into any belief system. Stress, anxiety, ill health, unhappiness and anger can be transformed into peacefulness, vibrant health, service and love towards all creation. The techniques are important in this process but the goal should be kept firmly in mind (Iyengar, 1981).

Walking is one of the best, safest and most natural forms of exercise. One can, in fact, walk their way to a healthier, stronger cardiovascular system. Walking is an effective exercise for people of all ages and all states and levels of health. What's more, walking increases our sense of well-being. Human beings were actually designed for lengthy, regular walking.

### OBJECTIVE OF THE STUDY

Aim of the study was to find out the effects of isolated and combined brisk walking and yoga practices on selected cardiovascular Risk fac-

tors of college men students.

### HYPOTHESIS

There is a significant difference between selected Cardiovascular Risk Factors among the experimental groups.

### METHODS:

**Sample:** For the present study forty five (N=45) men students studying in Alagappa Government Arts College, Karaikudi, Tamilnadu during the 2013-2014 were selected as subjects. The selected players were assigned in to three groups of fifteen each (n=15). Group-I underwent brisk walking, Group II underwent Yogic practices, and Group III underwent Combined brisk walking and yogic practices for a period of 12 weeks. The age range of subjects was 18-21 years. Random sampling technique was used.

### Variables

The following variables were selected for this study:

#### Independent variables:

- Brisk walking
- Yogic practices
- Combined brisk walking and yogic practices

#### Dependent Variables:

- Systolic Blood Pressure
- Diastolic Blood Pressure

### TOOLS

Blood Pressure was measure through Sphygmomanometer

### STATISTICAL TECHNIQUE

Analysis of Covariance (ANCOVA) was applied. Whenever the 'F' ratio for adjusted post test means was found to be significant, Scheffe's post hoc test was followed to determine which of the paired mean differences was significant. In all the cases 0.05 level of confidence was fixed to test the hypotheses.

### RESULTS AND DISCUSSION

The Analysis of covariance (ANCOVA) on Systolic Blood Pressure and Diastolic Blood Pressure of Brisk walking, Yogic practices, and Combined brisk walking and yogic practices group have been analyzed and presented in Table -I.

**Table – I**

Analysis of Covariance between Brisk walking, Yogic practices, and Combined brisk walking and yogic practices group on Systolic Blood Pressure and Diastolic Blood Pressure

Certain Variables	Adjusted Post test Means			Variance Source of	Sum of Squares	df	Mean Squares	'F' Ratio
	Brisk Walking Group-(I)	Yogic Practices Group-(I)	Combined Brisk walking and Yogic Practices Group (III)					
Systolic Blood Pressure	121.86	121.66	120.48	Between With in	16.08 8.54	2 41	8.04 0.21	38.56*
Diastolic Blood Pressure	82.37	82.31	80.24	Between With in	41.43 5.20	2 41	20.71 0.13	163.49*

\*Significant at .05 level of confidence.

(The table value required for significance at 0.05 level with df 2 and 41 is 3.23)

Table-I shows that the adjusted post test mean values of Systolic Blood Pressure and Diastolic Blood Pressure for Brisk walking, Yogic practices, and Combined brisk walking and yogic practices group are 121.86, 121.66, 120.48, 82.37, 82.31 and 80.24 respectively. The obtained F-ratios are 38.56 and 163.49 is more than the table value 3.23 for df 2 and 41 required for significance at 0.05 level of confidence.

The results of the study indicate that there is a significant difference exists among the adjusted post test means of experimental groups showing the decrease in Systolic Blood Pressure and Diastolic Blood Pressure.

To determine which of the paired means had a significant differences, Scheffe's test was applied as Post hoc test and the results are presented in Table II.

**Table - II**

The Scheffe's test for the Differences between the Adjusted Post Tests Paired Means on Dependent Variables

Certain Variables	Adjusted Post test Means			Mean Difference	Confidence Interval
	Brisk Walking Group-(I)	Yogic Practices Group-(I)	Combined Brisk walking and Yogic Practices Group (III)		
Systolic Blood Pressure	121.86	121.66		0.20	0.42
	121.86		120.48	1.38*	0.42
		121.66	120.48	1.18*	0.42
Diastolic Blood Pressure(TGL)	82.37	82.31		0.06	0.33
	82.37		80.24	2.13*	0.33
		82.31	80.24	2.07*	0.33

\* Significant at.05 level of confidence

Table-II shows that the adjusted post test means for differences on Systolic Blood Pressure between brisk walking group and combined brisk walking and yogic practices group and yogic practices group combined brisk walking and yogic practices group are 1.38, and 1.18. The values are greater than the confidence interval 0.42, which shows significant differences at

0.05 level of confidence. The values between brisk walking group and yogic practices group were 0.20, which is lesser than the confidence interval so it showed insignificant differences.

Table-II further shows that the adjusted post test means for differences on Diastolic Blood Pressure between brisk walking group and combined brisk walking and yogic practices group and yogic practices group combined brisk walking and yogic practices group are 2.12, and 2.07. The values are greater than the confidence interval 0.33, which shows significant differences at 0.05 level of confidence. The values between brisk walking group and yogic practices group were 0.06, which is lesser than the confidence interval so it showed insignificant differences.

The adjusted post test means values of Brisk walking, Yogic practices, and Combined brisk walking and yogic practices group on Systolic Blood Pressure and Diastolic Blood Pressure were graphically represented in the figure I and figure II respectively.

**Systolic Blood Pressure in mmHg**

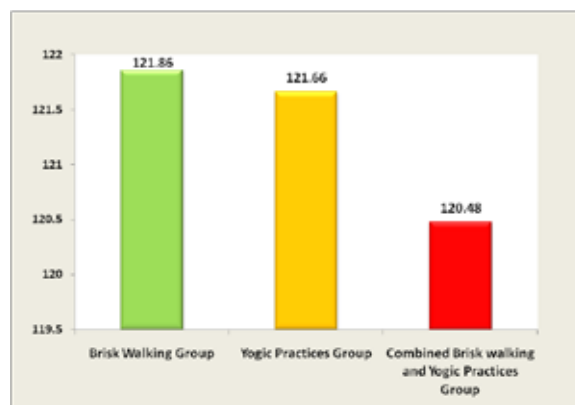


Figure I: Adjusted Post Test Means Values of Brisk Walking, Yogic Practices, and Combined Brisk Walking and Yogic Practices Group on Systolic Blood Pressure Diastolic Blood Pressure in mmHg

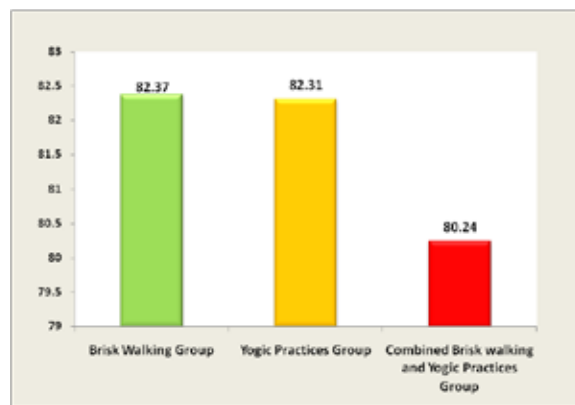


Figure II: Adjusted Post Test Means Values of Brisk Walking, Yogic Practices, and Combined Brisk Walking and Yogic Practices Group on Diastolic Blood Pressure

**CONCLUSION**

From the analysis of the data, the following conclusions were drawn. The Experimental groups had registered significant improvement on the selected criterion variables namely Systolic Blood Pressure and Diastolic Blood Pressure.

It may be concluded that combined brisk walking and yogic practices group is better than brisk walking and yogic practices group in decreasing Systolic Blood Pressure and Diastolic Blood Pressure.

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