



## Physical Education

## A SCIENTIFIC STUDY ON COMBINED EFFECT OF YOGASANA AND SHAMBHAVI MAHAMUDRA PRACTICE ON SYSTOLIC BLOOD PRESSURE

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**ABSTRACT**

The purpose of the present study was to investigate the efficacy of combined effect of yogasana and shambhavi mahamudra practice on systolic blood pressure. To achieve the purpose of the study thirty school students were selected from Karaikudi, Tamilnadu, India during the year 2019. The subject's age ranges from 14 to 17 years. The selected students were divided into two equal groups consists of 15 men students each namely experimental group and control group. The experimental group underwent a combined yogasana and shambhavi mahamudra practice programme for six weeks. The control group was not taking part in any training during the course of the study. Systolic blood pressure was taken as criterion variable in this study. The selected subjects were tested on systolic blood pressure was measured through sphygmomanometer monitor method. Pre-test was taken before the training period and post- test was measured immediately after the six week training period. Statistical technique 't' ratio was used to analyse the means of the pre-test and post test data of experimental group and control group. The results revealed that there was a significant difference found on the criterion variable. The difference is found due to combined yogasana and shambhavi mahamudra practice given to the experimental group on systolic blood pressure when compared to control group.

**KEYWORDS :** Combined Yogasana And Shambhavi Mahamudra Practice , Systolic Blood Pressure And't Ratio.

**INTRODUCTION**

Today, sports have become a part and parcel of our culture. It is being influenced and does influence all our social institutions including education, economics, arts, politics, law, mass communication and even international diplomacy (Alaguraja, K. et.al, 2019)<sup>4</sup>. Yoga is universally benefiting all people of all ages. The study of Yoga is fascinating to those with a philosophical mind and is defined as the silencing of the mind's activities which lead to complete realization of the intrinsic nature of the Supreme Being (Alaguraja, K. et.al., 2017)<sup>1</sup>. In the sports world, physical education is the most essential aspect due to the fact physical schooling increases the performance and the effectiveness of the sports (Alaguraja, K. et.al., 2018)<sup>2</sup>.

Yoga is a system of exercises which helps the mind and body in order to achieve tranquillity and spiritual insight (Alaguraja, K. et.al, 2019)<sup>5</sup>. Make sure that when you practice yoga asanas, you don't just stretch the body because the mind has to be with the body. (Alaguraja, K. et.al, 2019)<sup>8</sup>. One can start practicing Yoga at any given moment of time and you may start with meditation or directly with pranayama without even doing the asanas (postures). (Alaguraja, K. et.al, 2019)<sup>3</sup>. Today's there is an escalating emphasis on appearing smarter, feeling etter and living longer. In order to achieve these ideals as, scientific evidence tells us that one of the keys is high fitness and exercises (Alaguraja, K. et.al, 2019)<sup>7</sup>. When consciousness is operating with the intellect and with all the senses, by making an individual think that he or she is awake and aware, but the mind is actually less receptive and more critical (Yoga, P. et al., 2019)<sup>9</sup>.

Shambhavi Mahamudra kriya is a protocol within the Isha Yoga lineage that includes both pranyanama and meditation-based techniques. A kriya is a yogic action, or inner technique, such as breath control.

**RESEARCH METHODOLOGY****Selection of subjects**

The purpose of the study was to find out the combined effect of combined yogasana and shambhavi mahamudra practice on systolic blood pressure among school students. To achieve this purpose of the study, thirty school students were selected as subjects at random. The age of the subjects were ranged from 14 to 17 years.

**SELECTION OF VARIABLE****Dependent Variable**

- Combined yogasana and shambhavi mahamudra practice

**Independent variable**

- Systolic blood pressure

**EXPERIMENTAL DESIGN AND IMPLEMENTATION**

The selected subjects were divided into two equal groups of fifteen subjects each, such as a yogasana and shambhavi mahamudra practice group (Experimental Group) and control group. The experimental group underwent combined yogasana and shambhavi mahamudra practice for five days per week for six weeks. Control group, which they did not undergo any special training programme apart from their regular physical activities as per their curriculum. The following physiological variable namely systolic blood pressure was selected as criterion variable. All the subjects of two groups were tested on selected criterion variable systolic blood pressure was measured through sphygmomanometer method at prior to and immediately after the training programme.

**STATISTICAL TECHNIQUE**

The't' test was used to analysis the significant differences, if any, difference between the groups respectively.

**LEVEL OF SIGNIFICANCE**

The 0.05 level of confidence was fixed to test the level of significance which was considered as an appropriate.

**ANALYSIS OF THE DATA**

The significance of the difference among the means of the experimental group was found out by pre-test. The data were analysed and dependent 't' test was used with 0.05 levels as confidence.

**TABLE I Analysis of t-ratio for the pre and post tests of experimental and control group on Systolic blood pressure (Scores in mm Hg)**

Variables	Group	Standard Deviation		Sd Error	
		Pre	Post	Pre	Post
Systolic blood pressure	Control Group	2.29	1.67	0.59	0.43
	Experimental Group	2.59	2.02	0.66	0.52

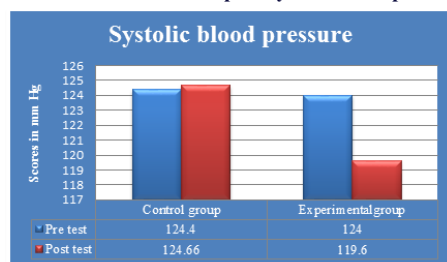
**TABLE II**

Variables	Group	Mean		Degree of freedom	't' ratio
		Pre	Post		
Systolic blood pressure	Control Group	124.4	126.66	14	0.93
	Experimental Group	124	119.6	14	12.13*

\*Significance at 0.05 level of confidence.

The Table-I and II shows that the mean values of pre-test and post-test of the control group on systolic blood pressure were 124.4 and 124.66 respectively. The obtained 't' ratio was 0.93, since the obtained 't' ratio was less than the required table value of 2.14 for the significant at 0.05 level with 14 degrees of freedom it was found to be statistically insignificant. The mean values of pre-test and post-test of the experimental group on systolic blood pressure were 124 and 119.6 respectively. The obtained 't' ratio was 12.13\* since the obtained 't' ratio was greater than the required table value of 2.14 for significance at 0.05 level with 14 degrees of freedom it was found to be statistically significant. The result of the study showed that there was a significant difference between control group and experimental group in systolic blood pressure. It may be concluded from the result of the study that experimental group improved in systolic blood pressure due to six weeks of combined yogasana and shambhavi mahamudra practice.

**Figure-1 Bar Diagram Showing the Pre and Post Mean Values of Experimental and Control Group on Systolic blood pressure**



## DISCUSSIONS ON FINDINGS

The result of the study indicates that the experimental group, namely combined yogasana and shambhavi mahamudra practice group had significantly improved the selected dependent variable, namely systolic blood pressure, when compared to the control group. It is also found that the improvement caused by combined yogasana and shambhavi mahamudra practice when compared to the control group.

## CONCLUSION

On the basis of the results obtained the following conclusions are drawn,

1. There was a significant difference between experimental and control group on systolic blood pressure after the training period.
2. There was a significant improvement in systolic blood pressure. However the improvement was in favor of experimental group due to six weeks of combined yogasana and shambhavi mahamudra practice.

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