

Effect of yogic practices on systolic blood pressure in middle aged men

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Abstract

The present study was undertaken primarily to assess the effectiveness of yogic practices on controlling Systolic blood pressure. For the study, 30 middle aged men aged between 35 and 40 years (mean \pm S.D. 37.5 ± 1.5 years) were randomly selected. The selected subjects for the present study were divided into two groups, namely yogic practice group and control group. The control group was not given any training. The experimental group practiced yoga, weekly six days i.e. Monday to Saturday, between 6.00 A.M. to 8.00 A.M., for a period of twelve week. Blood pressure was measured by indirect method using sphygmomanometer and stethoscope, as recommended by Cromwell systolic blood pressure was significantly decrease as a result of yoga practice.

Keywords: Yogic Practices, Systolic Blood Pressure, Middle Aged Men

Introduction

Yoga is one of the orthodox systems of Indian philosophy. It was collated, coordinated and systematized by patanjali in his classical work, the yoga sutras, which consists of 185 terse aphorisms. In Indian thought, everything is permeated by the supreme universal spirit (Paramatma or God) of which the individual human spirit (Jivatma) is a part. The system of yoga is called because it teaches the means by which the jivatma can be united to, or be in communion with the paramatma, and so secure liberation (MOKSA).

Methodology

The present study was undertaken primarily to assess the effectiveness of yogic practices on controlling Systolic blood pressure. For the study, 30 middle aged men aged between 35 and 40 years (mean \pm S.D. 37.5 ± 1.5 years) were randomly selected. The selected subjects for the present study were divided into two groups, namely yogic practice group and control group. The control group was not given any training. The experimental group practiced yoga, weekly six days i.e. Monday to Saturday, between 6.00 A.M. to 8.00 A.M., for a period of twelve week. Blood pressure was measured by indirect method using sphygmomanometer and stethoscope, as recommended by Cromwell.

Physiological Variables:

Blood pressure: Systolic

Test Administration

Measurement of Blood Pressure

Blood pressure was measured by indirect method using sphygmomanometer and stethoscope, as recommended by Cromwell

For measuring blood pressure, the subjects were asked to report early in the morning and were allowed to reflex for half

an hour by lying down on the mattress. After ensuring that the subjects were relaxed mentally and physically, they were asked to sit in a chair and the cuff of the sphygmomanometer was placed on the right upper arm of the subject. The stethoscope was placed over the brachial artery downstream from the cuff.

The pressure cuff on the upper arm was inflated by pressing the rubber bulb and the cuff was inflated till no sounds were heard in the stethoscope, as the brachial artery has been collapsed by the pressure of the cuff. The pressure in the cuff was then gradually reduced by deflating the cuff through the valve. As the cuff started deflating gradually small sound called "korotkoff" sounds were heard through the stethoscope, at this stage the mercury level in the manometer was recorded and this recording was taken as systolic blood pressure.

The pressure of the cuff that was indicating on the manometer when the first "korotkoff" sound was heard, was recorded as the systolic blood pressure. As the deflation continued and the pressure started falling at one stage the "korotkoff" sounds disappeared as the pressure was no longer sufficient to occlude the vessel.

The data collected from the two groups prior to experimental treatment as pre-test data and after twelve weeks of training on systolic and Systolic blood pressure were statistically examined for significant difference, applying the analysis of covariance (ANCOVA). No attempt was made to equate the groups in any manner. Hence to make adjustments for difference in the initial means and test the adjusted post-test means for significant differences, the analysis of covariance was used.

Systolic Blood Pressure

The data collected prior to and after the experimental period on systolic blood pressure for yogic practice group and control group were analyzed and presented in Table

Table I: Analysis of Covariance on Systolic Blood Pressure of Yogic Practice Group and Control Group

	Yogic Practice Group	Control Group	Source of Variance	Sum of Square	DF	Mean Square	'F' ratio
Pre-test Mean	134.27	134.40	Between	0.133	1	0.133	0.004
S.D	5.23	6.01	Within	888.533	28	31.733	
Post-test Mean	132.80	135.87	Between	70.533	1	70.533	2.296
S.D.	5.060	5.986	Within	860.133	28	30.719	
Adjusted	132.864	135.803	Between	64.788	1	64.788	35.22*
Post-test Mean			Within	49.672	27	1.84	

* Significant .05 level of confidence.

(The table values required for significance at .05 level of confidence with df 1 and 28 and 1 and 27 were 4.20 and 4.21 respectively).

Table - I showed that the pre-test mean values of systolic blood pressure for yogic practice group and control group were 134.27 ± 5.23 and 134.40 ± 6.01 respectively. The obtained 'F' ratio value of 0.004 for pre test scores of yogic practice group and control group on systolic blood pressure was less than the required table value of 4.20 for significance with df 1 and 28 at .05 level of confidence.

The post-test mean values for systolic blood pressure for yogic practice group and control group were 132.80 ± 5.060 and 135.87 ± 5.986 respectively. The obtained 'F' ratio value of 2.296 for post-test scores of yogic practice group and control

group was lesser than the required table value of 4.20 for significance with df 1 and 28 at .05 level of confidence.

The adjusted post-test mean values of systolic blood pressure for yogic practice group and control group were 132.864 and 135.803 respectively. The obtained 'F' ratio value of 35.22 for adjusted post-test scores of yogic practice group and control group were greater than the required table value of 4.21 for significance with df 1 and 27 at .05 level of confidence.

The mean values of yogic practice group and control group on systolic blood pressure were graphically represented in Figure - I.

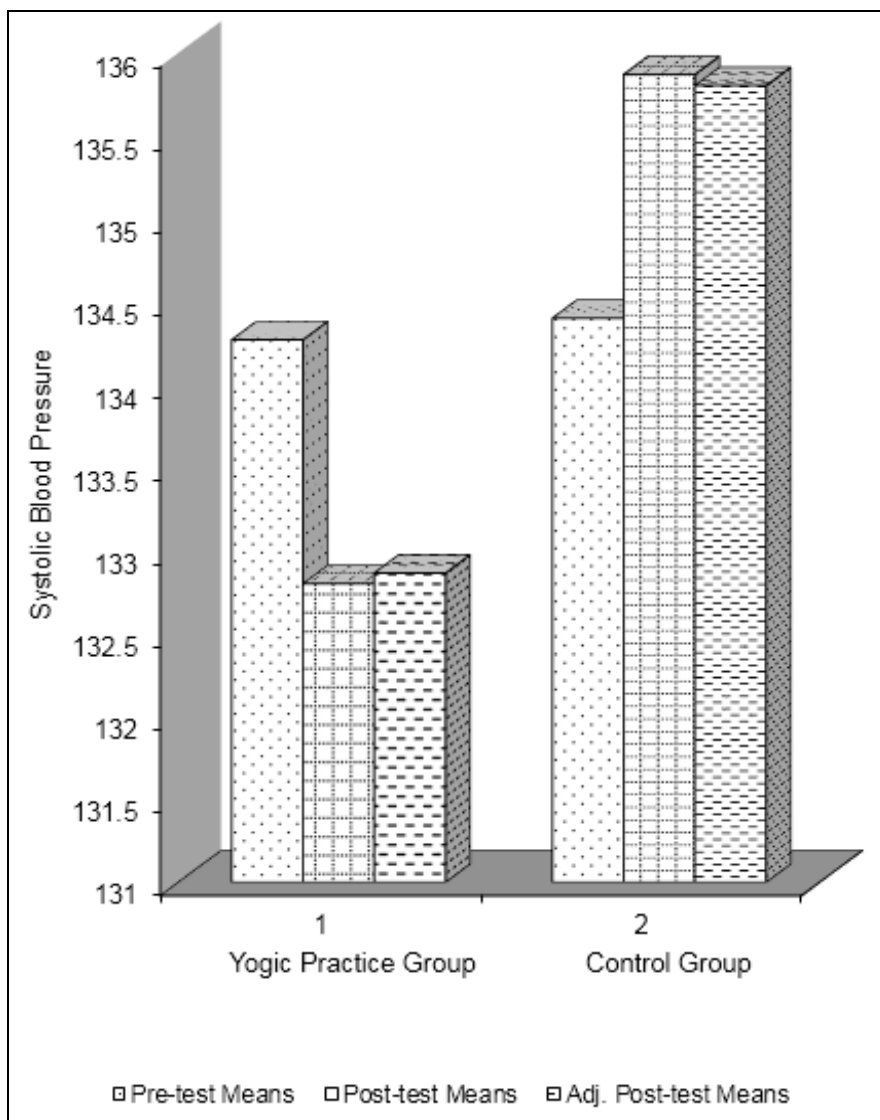


Fig I: Bar Diagram Showing the Mean Values of Yogic Practice Group and Control Group on Systolic Blood Pressure

Conclusion

The results of this study showed that there was a significant difference between yogic practice group and control group on systolic blood pressure. Moreover, the result of the study also shown that there was a significant decrease in systolic blood pressure after the yogic practice when compared with the control group.

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