



## Effect Of Yogic Practices On Selected Physiological Variables Among Hypertension Patients

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### ABSTRACT

The purpose of the study was to find out the effect of yogic practices on selected physiological variables among hypertension patients. To facilitate the study, 30 hypertension man patients were selected from Pondicherry city. They were select as subjects on randomly aged between 35 to 60 years and then given training to the experimental group for the period of six weeks. The pre tests were taken from the subjects before administering the training. The subjects were involved with their respective practices on five days in a week. The control groups did not participate in any of practices. At the end of the six weeks practices post test were taken on selected variables for the study on blood pressure, heart rate. Analysis of Covariance (ANCOVA) test was used to find out whether the mean differences were significant or not. The results proved that there was significant improvement in physiological variables due to six weeks yogic practices.

**Keywords :** Hypertension, Heart rate, Yogic practices

### INTRODUCTION

Modifications of lifestyle are often critically important to adequately control existing hypertension. The elevated blood pressure (BP) of patients who are gaining weight, performing little physical activity, smoking and drinking alcohol in excess may be impossible to control despite progressively increasing doses of multiple medications. Modification of lifestyle is even more important to a much larger population of patients, those who are genetically predisposed to developed hypertension if exposed to adverse environmental factors. As a consequence of the rapid growth of these environmental factors – including obesity, physical inactivity, stress, excessive alcohol consumption, and too much dietary sodium – plus too little dietary potassium – the incidence of hypertension continues to increase. Obviously, everyone would benefit from the prevention of hypertension, a far more effective way to reduce the personal and societal burdens of cardiovascular disease (CVD) than the treatment of the established disease.

### YOGIC PRACTICES

The cure of disease by application of yogic methods is called yogic cure or yogic therapy. There are person who apply some of these methods. They use only yoga Asanas in their treatment. Some add praanayama or breathe control also. Most of them disregard diet and habits. The next important ingredient in the yogic therapy is diet and habit reformation. Seldom is this combined with the application of Asanas and Praanaayama. The other aspects of yogic therapy mentioned below are not at all thought about.

One may ask why those methods of treating disease should be called Sundara Yogic Therapy. I have given this name because all the methods involved in yoga are handled in a special way, backed by decades of experience for the eradication and prevention of diseases. The details of this treatment can be studied applied and utilized by anyone either for one's own self or as a public service. What I prescribe as the methods contemplated in this Sundara Yogic Therapy is listed below, 1.Asanas, 2.Pranayama, 3.Physical exercises, 4.Diet, 5.Regulation of habit and conduct, 6.Massage, 7.Magnetic treatment or transference of personal magnetism, 8.Auto-suggestion and Psycho-analysis, 9.Divine healing.

### HYPOTHESIS

1. It was hypothesized that there would be a significant im-

provement due to yogic practices on selected physiological variables among hypertension patients.

### DEPENDANT VARIABLES

#### Physiological variables

1. Blood Pressure – Sphygmomano Meter
2. Heart Rate – Heart Rate Monitor

### INDEPENTEND VARIABLES

1. Yogic practices

### METHODOLOGY

The purpose of this study was to investigate the effect of yogic practices on selected physiological variable among hypertension patients. In order to achieve the purpose of the study 30 subject were selected randomly and they were equally divided in to two groups of 15 each as experimental and control group. The experimental group underwent yogic practice for 35 to 60 minutes in the evening. The control group (CG) was not given any special training. The period of training was 6 weeks in a schedule of weekly 5 days. The data were collected on the selected variables of blood pressure and heart rate before and after the training period. Analysis of Covariance (ANCOVA) was use to analyze the data. To test the significance 0.05 level of confidence was fixed.

### TRAINING SCHEDULE

The experimental group underwent yogic practice for 40 to 60 minutes in the evening. The control group (CG) was not given any special training. The period of training was 6 weeks in a schedule of weekly 5 days. Selected yogic practices are:

- Ardha halasana
- Ardha paschumottanasana,
- Vipareetakarani
- Pavanamukta asana
- Bhujanha asana
- Virasana
- Noukasana
- Siddhasana
- Padmasana
- Shavasana
- Nadi suddhi Praanayama
- Meditation
- Relaxation, Prayer.

**RESULTS AND DISCUSSION**

The analysis of covariance on the data obtained on physiological variables of experimental and control groups have been analyzed and tabulated in Table –I.

**Table I**  
**Analysis of Covariance of Experimental and control groups of Physiological variables**

Variables	TEST	CON GP	EXP GP	SV	SS	df	MS	'F' ratio
Diastolic blood pressure	Pre test	98.47	98.00	between	1.63	1	1.633	0.01
				within	7788.27	28	278.15	
	Post test	99.27	86.67	between	1190.70	1	1190.70	47.88*
				within	696.27	28	24.87	
	adjusted	99.28	86.65	between	1197.06	1	1197.06	44.06*
				within	733.59	27	27.17	
Systolic blood pressure	Pre test	159.33	164.47	between	197.63	1	197.633	0.25
				within	22240.93	28	794.32	
	Post test	163.53	148.20	between	1763.33	1	1763.33	23.14
				within	2134.13	28	76.22	
	adjusted	163.32	148.42	between	1680.29	1	1680.29	19.80
				within	2291.69	27	84.88	
Heart Rate	Pre test	82.00	83.60	Between	19.20	1	19.200	0.29
				Within	1835.60	28	65.56	
	Post test	83.60	74.27	Between	653.33	1	653.33	13.04*
				Within	1402.53	28	50.09	
	adjusted	84.22	73.65	Between	828.69	1	828.69	71.63*
				Within	312.38	27	11.57	

\*significant at 0.05 level (the table value required for significance at 0.05 level with df1 and 27 is 4.20).

Table I shows the diastolic blood pressure, systolic blood pressure and heart rate among the experimental and control group before (pre) and after (post) scores of yogic practices. There was a significance changes in diastolic blood pressure, systolic blood pressure, and heart rate. The pre test means of all the variables does not show any significant difference. After the yogic practices the experimental group (98.00 mmHg vs 86.67mmHg) showed a decrease of 11.33 mmHg in diastolic blood pressure. In case of systolic blood pressure, experimental group (169.47 bt/min vs 148.20 bt / min) showed a decrease of 16.27 bt/min which was significantly changed. In case of heart rate (83.60 vs 74.25) showed a decrease of 9.35 which was significantly changed. Where as the control group shows no significant difference in all the above mentioned variables.

**DISCUSSION ON HYPOTHESIS**

1. The research hypothesis 1 stated that the yogic practice would reduce blood pressure and heart rate among hypertension patients. The result of the study showed that there was a more significant change in physiological variables. So the research hypothesis 1 was accepted.

**CONCLUSION**

1. It was concluded that due to six weeks yogic practices improved the physiological, variables among hypertension patients.
2. The physiological variable of systolic blood pressure was significantly reduced due to influence of six weeks training of yogic practice group compared to control group.
3. The physiological variable of diastolic blood pressure was significantly reduced due to influence of six weeks training of yogic practice group compared to control group.
4. The physiological variable of heart rate was significantly reduced due to influence of six weeks training of yogic practice group compared to control group.

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