



Effect of Manavalakkalai Yoga and Acupuncture on Systolic Blood Pressure among Drivers with Back Pain

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Received 09th April 2021, Accepted 1st May 2021

Abstract

Vethathiri Maharishi is the exponent of the system of "Simplified Kundalini Yoga (SKY)" which is the sure way for lasting peace and real and absolute happiness. Simplified Kundalini Yoga practices helps all the systems of the body to work in close coordination with each other most effectively and any imbalance in the body will be immediately corrected by evoking inner energy and healing powers of the body. The study is conducted on 45 drivers with back pain in totally three groups, namely, experimental group – I & II and Control Group, each group consisted of 15 Aged Diabetic people. They underwent eight weeks of practice in Manavalakkalai yoga and acupuncture of both the experimental groups whereas the control group do not undergo any type of training. The systolic blood pressure of the Physiological variable are measured before and after using the citizen equipment. The Analysis of Covariance (ANCOVA) analyzes the data and it is concluded that the Manavalakkalai yoga and acupuncture have a significant of ($P < 0.05$).

Keywords: Manavalakkalai yoga and acupuncture, Systolic blood pressure.

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Introduction

Low Backpain is one of the most common pain disorders today. It is a chronic condition characterized by a persistent dull or sharp pain per the lower back. It may be also associated with burning, stiffness, numbness or tingling with the pain shooting down the buttocks and the legs. The first step to understanding low back pain is appreciating the normal design (anatomy) of the tissues of this area of the body. Important structures of the low back that can be related to symptoms in this region include the bony lumbar spine (vertebrae, singular = vertebra), discs between the vertebrae, ligaments around the spine and discs, spinal cord and nerves, muscles of the low back, internal organs of the pelvis and abdomen, and the skin covering the lumbar area.

The bony lumbar spine is designed so that vertebrae "stacked" together can provide a movable support structure while also protecting the spinal cord from injury. The spinal cord is composed of nervous tissue that extends down the spinal column from the brain. Each vertebra has a spinous process, a bony prominence behind the spinal cord, that shields the cord's nervous tissue from impact trauma. Vertebrae also have a strong bony "body" (vertebral body) in front of the spinal cord to provide a platform suitable for weight bearing of all tissues above the buttocks. The lumbar vertebrae stack immediately atop the sacrum bone that is situated

in between the buttocks. On each side, the sacrum meets the iliac bone of the pelvis to form the sacroiliac joints of the buttocks.

Swami Vethathiri Maharishi was born on 14-08-1911 at Gudavancheri, a small village near Vandalur, Sivakasi into an indigent weaver's family. After spending several years in minor employments, he established a textile concern that grew to employ over 2000 workers, on a profit sharing basis. At the age of 23, he stopped taking supper. Swamiji married his niece (sister's daughter) and lived as a house holder in the indigenous Siddha tradition, maintaining family ties. At the age of fifty, he closed his commercial ventures and devoted himself solely to spiritual service. Swamiji after living and spreading the spiritual knowledge for many years, entered the eternal Samadhi on 28-03-2006 at Aliyar Ashram, Coimbatore District.

"Kaya" means "Body" and "Kalpa" denotes "Immortal". Disease, old age and death are three major problems which have been engaging the attention of medical scientists as well as philosophers. Kayakalpa has a three-fold objective.

- Withstanding the aging process
- Maintaining health and youthfulness
- Postponing one's death to suit one's wishes

Our human body comprises mainly a) the physical body b) the mind c) the bio-magnetism d) the life-force and e) the sexual vital fluid. All these are inter-related.

Kundalini means "Coiled up". Also called Serpent Power. Kundalini means a coiled up energy or the power that dwells in a cave (Kundala) which is the basic energy of the creative force, a primal cosmic

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energy outside electromagnetic spectrums, lying dormant in flexus (Muladhara Chakra) in the human body. The word Kundala means a deeper place, a cavity, referring to a concave pit in which the human brain nestles in the form of a coiled and sleeping serpent, hence the name Kundalini. In humans it lies asleep in the perineum between the excretory and urinary organs. In females it lies at the root of the uterus in the cervix. It is illustrated as a sleeping serpent coiled 3 ½ times and closing the opening of the sushumna nadi in the center of the spine by its mouth.

3 coils represents :

3 parts of Aum : Past, Present and Future
 3 gunas : Tamas, Rajas, Sathva
 3 states of Consciousness : Waking, sleeping, dreaming
 3 types of experiences : Subjective, sensual & absence of an experience

: Represent the state of transcendent consciousness which is beyond waking, sleeping or dreaming state

Statement of the Problem

The purpose of the study was to find out the effect of Manavalakkalai yoga with and without acupuncture on systolic blood pressure among drivers with back pain.

Review of Related Literature

Krishnan, Sripriya (2006) the present study was aimed to investigate the effect of Simplified Kundalini Yoga on personality development of adolescents. The study using devised standardized questionnaire, was conducted on 450 students from Government, Government aided and private schools situated in Sivakasi. Training consisting of simplified physical exercises, meditation and introspection, was imparted to the experimental group of 250 students. 't' Tests were used to study the impact of the yoga on the various aspects of personality and the academic achievement of the students. Variance analysis was done to find out the differences in the aspects of personality and improvement, if any, in the academic achievement of

the practitioners with respect to type of school, sex and subject studied. Results of ANOVA highlighted that sex and the subjects studied have no significant bearing on the effects of Simplified Kundalini Yoga. Results of the training showed significant effect on the personality and the academic achievement of the students.

Methodology

The purpose of the study was to find out the effect of Manavalakkalai yoga with and without acupuncture on systolic blood pressure among drivers with back pain. For the purpose of this study, forty five Systolic blood pressure among drivers with back pain were chosen on random basis from Sivakasi only. Their age group ranges from 30 to 40 years.

The subjects were divided into three group of fifteen each. The experimental group I would undergo Manavalakkalai yoga with acupuncture and the experimental group II undergo Manavalakkalai yoga without acupuncture and third group consider as control group not attend any practices, and the pre test and post tests would be conducted before and after the training. Training would be given for eight weeks It would be found out finally the effect of Manavalakkalai yoga with and without acupuncture on systolic blood pressure among Systolic blood pressure college men in scientific method. Systolic blood pressure was measured by the citizen equipment. The collected data were statistically analysed by using analysis of covariance (ANCOVA).

Training Schedule

Experimental Group I : Manavalakkalai yoga with acupuncture

Experimental Group II : Manavalakkalai yoga without acupuncture

Group III : Control Group (No Training).

The statistical analysis comparing initial and final means of systolic blood pressure due to Manavalakkalai yoga with and without acupuncture among systolic blood pressure drivers with back pain is presented in Table 1.

Table 1. Computation of mean and analysis of covariance of systolic blood pressure of experimental and control group (Scores in mm Hg)

Test	Experimental Group – I (Manavalakkalai yoga with acupuncture)	Experimental Group – II (Manavalakkalai yoga without acupuncture)	Control group	Source of variance	df	Sum of square	Mean square	F
Pre-test mean	141.1667	142.43	141.87	Between	2	24.16	12.078	0.88
				Within	42	1193.00	13.71	
Post-test mean	126.5	129.83	140.63	Between	2	3275.02	1637.51	125.12*
				Within	42	1138.63	13.09	
Adjusted mean	126.58	129.76	140.63	Between	2	3250.66	1625.33	124.78*
				Within	41	1120.223	13.03	
Mean Gain	14.66667	12.60	1.23					

* $F_{(0.05)}(2,42 \text{ and } 2, 41) = 3.23$. *Significant at 0.05 level of confidence.

To find out which of the paired means had a significant difference, the Scheffe's post-hoc test is applied and the results are presented in table 2.

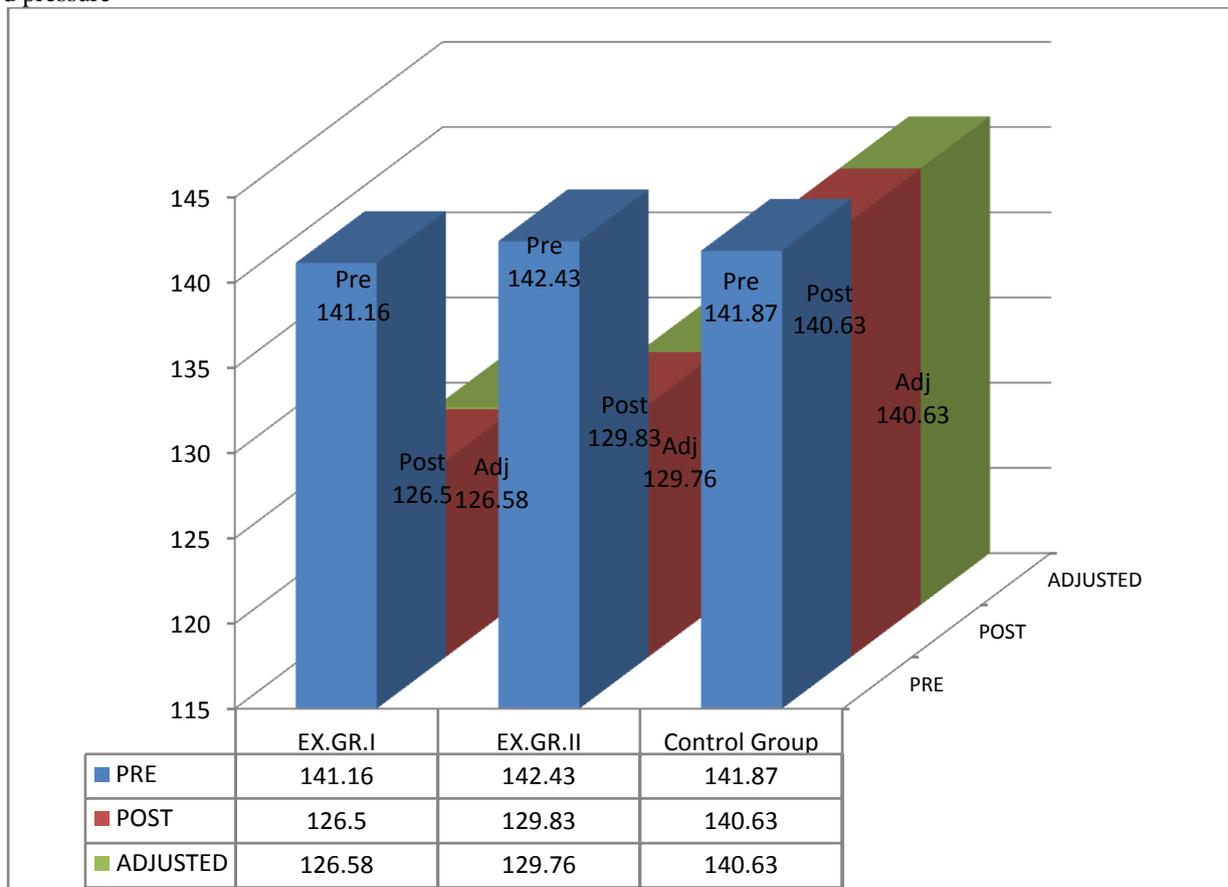
Table 2. Scheffe's post-hoc test for systolic blood pressure

Experimental Group – I (Manavalakkalai yoga with acupuncture)	Experimental Group – II (Manavalakkalai yoga without acupuncture)	Control group	Mean difference	Required C.I
126.58	129.76	-	3.238	2.32
126.58	-	140.63	14.05	2.32
-	129.76	140.63	10.87	2.32

* Significant at 0.05 level.

The ordered adjusted means were presented through bar diagram for better understanding of the results of this study in Figure I.

Figure I. Bar diagram showing pre, post and adjusted post-test values of control group, two experimental groups on systolic blood pressure



Results and Discussions of Systolic Blood Pressure

Taking into consideration of the post test and adjusted post test F value were determined and Analysis of Covariance was done and the obtained F value 125.12 and 124.78 was greater than the required value of 3.23 and hence it was accepted that the Manavalakkalai yoga with and without acupuncture significantly decreased the Systolic blood pressure among drivers with back pain at 0.05 level.

The post hoc analysis of obtained ordered adjusted means proved that there was significant differences existed between Manavalakkalai yoga with acupuncture group and control group and Manavalakkalai yoga without acupuncture group and control group on Systolic blood pressure. This proved that due to eight weeks Manavalakkalai yoga with acupuncture practices and Manavalakkalai yoga without acupuncture on Systolic blood pressure was significantly decreased among drivers with back pain.

Discussion on the findings of systolic blood pressure

The Analysis of Co-variance of Systolic blood pressure indicated that experimental group I (Manavalakkalai yoga with acupuncture), experimental group II (Manavalakkalai yoga without acupuncture), were significantly improved than the control group on Systolic blood pressure. It may be due to the effect of

Manavalakkalai yoga with acupuncture and Manavalakkalai yoga without acupuncture among drivers with back pain.

The findings of the study showed that the experimental group I (Manavalakkalai yoga with acupuncture) had improvement Systolic blood pressure more than the experimental group I (Manavalakkalai yoga without acupuncture) among drivers with back pain.

Conclusion

There was a significant improvement in Systolic blood pressure of experimental groups when compared to the control group. Manavalakkalai yoga with acupuncture group has shown mild improvement than the Manavalakkalai yoga without acupuncture among drivers with back pain.

References

1. E.F. Martin Seligman walker & D.L. Rosenhan (2001), "Abnormal Psychology" (4th ed). New York: W.W.Norton & Company, Inc.
2. Pooja Malhaotea (2007), Calories, New Delhi, Sterling Publication Pvt. Ltd: p. 16-56.
3. Swami Muktibodhanada. (2008), Hatha Yoga Pradipika, Bihar; Yoga Publication Trust: pp 5-125

4. Swami Satyananda Saraswati. (1999) Asana Pranayama Mudra Bandha, Bihar: Bihar School of Yoga. (P.1-392)
5. Thirumalaisamy, R. (1997) Statistics in Physical Education, Karaikudi, Senthilkumar Publishers.
6. Yogacharya Sundaram (2004). Sundara Yogic Therapy, Bangalore: The Yoga Publishing House.
7. Kirkwood, G. et. al., (June 2005) “Yoga for Anxiety: A Systematic Review of the Research Evidence” British Journal of Sports Medicine, (39), 884-891.
8. Latha s (1997), “Development of Stressful Life Events Questionnaire” Journal of Psychometry Vol. 10. No. 2.
9. Madanmohan, et. al., (October 1992) “Effect of Yoga Training on Reaction Time, Respiratory Endurance and Muscle Strength” Indian Journal of Physiology and Pharmacology, 36(4), 229-33.
10. Malathi, A and Parulkar, V.G. (April 1989) “Effect of yogasanas on the visual and auditory reaction time” Indian Journal of Physiology and Pharmacology, 33(2), 110-2.