

EFFECT OF YOGIC PRACTICES THERAPEUTIC EXERCISES AND COMBINED PRACTICES ON RESTING PULSE RATE AMONG LOW BACK ACHE MEN

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ABSTRACT

The present study was designed to find out the effect of yogic practices therapeutic exercises and combined practices on resting pulse rate among low back ache men. It was hypothesized that there would be significant differences in resting pulse rate among low back pain for middle age men due to the influences of effect of yogic practices therapeutic exercises and combined practices . To achieve the purpose of the study, 60 low back pain men were selected randomly from Chennai city as a subject. Their age ranged between 30 and 40 years. The Experimental group I, II and III underwent effect of yogic practices therapeutic exercises and combined practices respectively for the period of 6 weeks of an hour in the morning. The control group was not exposed to any specific training but they participated in their regular activities. The pre-test and post-test were conduct before and after the training for four groups. The data pertaining to the variables collected from the four groups before and after the training period were statistically analyzed by using Analysis of Covariance (ANCOVA) to determine the significant difference and tested at 0.05 level of significance.

Keywords: yogic practices and therapeutic exercises, Resting Pulse Rate.

INTRODUCTION

The subtle anatomy of the humans is divided into five energetic sheaths known as ‘pancha kosha’. Pancha, meaning five and kosha, meaning layer or sheath. This ideology describes the human being “as multi-dimensional, with the source or foundation in a spiritual dimension.” The so-called ‘spiritual dimension’ is pure consciousness which is hidden by the other four koshas, the outermost layer being the most dense, physical body. Each kosha can be thought of as energy vibrating at a different frequency. The physical body therefore vibrates at the slowest rate and the ‘inner light of consciousness’ or ‘atman’ vibrates at fastest rate or frequency.

The people should not be surprised that backache is so common when we understand the highly complex mechanics involved in the functioning of the spinal column. Since man became a biped, the center of gravity (COG) has become narrowed to a small zone (the area of one foot) as compared to the wide area of the center of gravity when we were four legged animals. The brunt of the weight of entire body has to be borne by the spinal column. While having to do this the spinal column also has to allow for enormous degree of flexibility. This is ensured by

a highly complex organization of various anatomical structures such as bones, discs, ligaments, tendons, nerves, blood vessels and strong muscles. Any one of these structures could be injured or affected by diseases or subjected to excessive stress and strains thus contributing to pain in most mobile parts of the spine namely the neck and lumbar region.

Lumbosacral pain has been a recognized human affliction for a long time. Hippocrates also talks about lumbosacral pain. In western medicine, we find the very first reports on naked eye descriptions of the normal and degenerate spine in the writings of Vesalius in 1555. Virchow first described what is now known as a lumbar disc prolapse in 1875. Middleton and Teacher first described lumbar disc herniation. Goldthwaite in 1905 described the result of manipulating the lower back of a patient who was thought to be suffering from a sacroiliac subluxation.

Yoga is an ancient Indian practice which involves moving the body and mind to achieve balance and well-being. The purpose of traditional yoga is for each individual to be healthy, both physically and mentally, and able to reach his to her highest potential as a person. Practicing yoga as a lifestyle can be beneficial for individuals with disabilities or chronic health conditions through both the physical postures and breathe work. Each pose can be modified or adopted to meet the needs of the student.

The word yoga originated from the Sanskrit word YUJ, which means to bind or unite together. This is the true union of jeevathma with paramathma.

AIM OF THE STUDY

The present study was designed to find out the effect of yogic practices therapeutic exercises and combined practices on Resting Pulse Rate among low back pain for middle age men.

HYPOTHESIS

It was hypothesized that there would be significant differences on Resting Pulse Rate among Low back pain for middle age men due to effect of yogic practices therapeutic exercises and combined practices groups than the control group.

REVIEW OF RELATED LITERATURE

Tiken, Kosana, Joy and Inaobi (2002) have conducted a study on influence of specific yoga and aerobic exercise on physical fitness of SAI (NERC IMPHAL) STC Athletes. 30 boys and 30 girls from SAI NERC Imphal were divided into two groups according to their mean age and height of 17.5 years and 15 years and 172.8 cms and 156.4 cms respectively. Training was given twice in a week for four months. Vertical jump to test explosive power, push ups and sit ups to test strength endurance, sit and reach to test Resting

Pulse Rate, 50 yards dash to test speed and 12 min run walk to test endurance were conducted for aerobic exercise and yoga group before the training and after the two months and four months of training. It was concluded that (i) Improvement of physical fitness assessed on three selected physical fitness tests after four months of yoga and aerobic had justified the fact that both yoga and aerobic exercise were effective in developing physical fitness and (ii) in yoga and aerobic exercise groups, boys were found superior to girls group in sit and reach (Resting Pulse Rate) and 12 min run – walk (endurance), 50 yards (speed).

METHODOLOGY

For the purpose of the study, 60 Low back pain men from Chennai city aged between 30 and 40 years were selected.. They were equally divided into four groups: experimental group I (yogic practices), Experimental group II (therapeutic exercises), Experimental group III (yogic practices & therapeutic exercises) and control group (no intervention).

This study employed the experimental random group design, effect of yogic practices therapeutic exercises and combined practices as the independent variable and Resting Pulse Rate as the dependent variable. The training scheduling comprises of six days per week for the maximum of one hour for six weeks. The data were collected before training as pre-test from four groups. After six weeks of effect of yogic practices therapeutic exercises and combined practices, data were again collected from all the three experimental groups and control group as post test. The equipment used to measure the level of Resting Pulse Rate through standard equipment. Analysis of covariance (ANCOVA) was used to find out the significant differences among the groups. The level of significance was fixed at 0.05.

RESULT AND DISCUSSION

Resting Pulse Rate was measured through standardized equipment. The pre and post test means of the experimental groups and control group statistically analyzed to find out the significance of Table

Table I

COMPUTATION OF ANALYSIS OF COVARIANCE OF RESTING PULSE RATE

(Total Scores in beats/min)

	Yogic practices	therapeutic Exercises	Combined Yogic practices & Therapeutic exercises	Control group	Source of Variance	Sum of Squares	df	Mean Squares	Adjusted F
Pre Test Mean	80.67	80.27	81.47	81.87	Between	24.00	3.00	8.00	2.20
					Within	203.73	56.00	3.64	
Post Test Mean	75.80	78.80	74.73	82.47	Between	541.38	3.00	180.46	29.60*
					Within	341.47	56.00	6.10	
Adjusted Post Test Mean	75.93	79.06	74.60	82.21	Between	515.74	3.00	171.91	29.52*
					Within	320.34	55.00	5.82	
Mean Diff	4.87	1.47	6.73	0.60					

Table value at 0.05 level of confidence for 3 and 56 (df) is 2.77.

* Significant at 0.05 level.

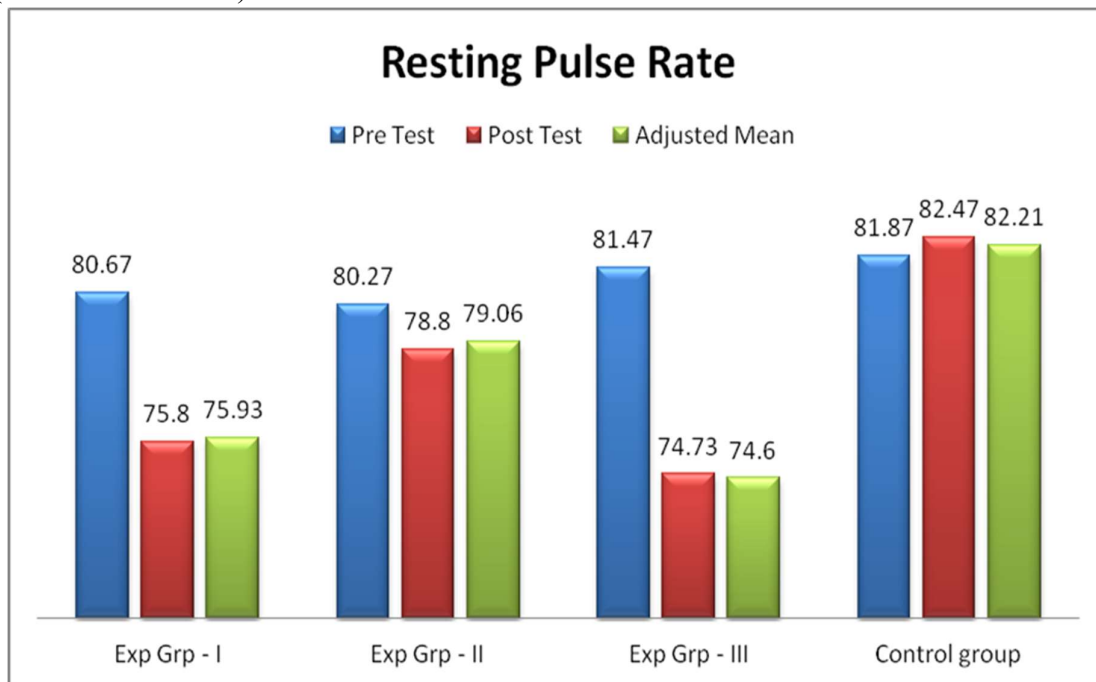
Table II
Scheffe's Confidence Interval Test Scores on Resting Pulse Rate
(Scores in beats/min)

MEANS				Mean Difference	Required . C I
ControlGroup	GROUP I	GROUP II	GROUP III		
82.21	75.93			6.28*	2.54
82.21		79.06		3.15*	
82.21			74.60	7.60*	
	75.93	79.06		3.13*	
	79.06		74.60	4.45*	
		79.06	74.60	4.45*	

* Significant

Figure 1

Bar Diagram on Ordered Adjusted Means of Resting Pulse Rate
 (Scores in beats/min)



DISCUSSION ON THE FINDINGS OF RESTING PULSE RATE

The Table shows that Scheffe's confidence interval values of Resting Pulse Rate of EX.GR-I (Yogic practices), EX.GR-II (Therapeutic exercises) and EX.GR-III (Combined) groups and control group (no Training) of Low back pain for middle age men.

The findings of the study on Resting Pulse Rate reveal that the experimental groups namely EX.GR-I (yogic practices), EX.GR-II (therapeutic exercises) and EX.GR-III (combined) had significantly improved after the training. Besides, the results of the study indicated that there was significant difference between the EX.GR-I (yogic practices), EX.GR-II (therapeutic exercises) and EX.GR-III (combined).

DISCUSSION ON HYPOTHESIS

The hypothesis results shows that the calculated 'F' value is greater than the table value on the Resting Pulse Rate among Low back pain for middle age men for post test scores as Resting Pulse Rate is increased. This proves that there was significant difference between the experimental groups and control group. Hence the hypothesis was accepted at 0.05 level of significance.

CONCLUSION

There was a significant improvement in Resting Pulse Rate of experimental groups when compared to the control group. Combined group (Yogic practices with therapeutic exercises) group has shown mild improvement than the Yogic practices group and therapeutic exercises) group.

REFERENCES

- Smt. Meenakshi Devi Bhavanani, "Returning to the Roots; Classical Yoga".
- (Latha, 1997) "Response pattern of the organism to prepare itself for Fight or Flight".
- Alamelu, M.S(2013)studied the effect of Vethathiri Maharishi's Simplified Kundalini Yoga (erstwhile Manavalakkalai Yoga).
- Saravanan,V.S (2013) studied the effect of Pathanjali yoga and Manavalakkalai Yoga.
- Indira Devi (1967), "Yoga: The Technique of Health and Happiness", Bombay: Jaico Publishing House, pp. 20.
- Iyengar BKS (1999), "The Gift of Yoga", New Delhi: Harpers Collins Publications India Pvt Ltd., pp.394.
- Iyengar. B. K. S, (2001), Light on the yoga Sutras of Patanjali, New Delhi: HarperCollins Publishers, India, pp.9-40.
- Kumarapeli V, Seneviratne RD, Wijeyaratne CN, et al: A simple screening approach for assessing community prevalence and phenotype of Low back pain for middle age men in a semi-urban population in Sri Lanka. Am J Epidemiol 2008; 168:321
- Ram Nidhi, Venkatram Padmalatha, Raghuram Nagarathna, Ram Amritanshu. Prevalence of Polycystic Ovarian Syndrome in Indian Adolescents. J Pediatr Adolesc Gynecol 24 (2011) 223-227[PubMed]

- Nidhi,R., Padmalatha,V., Nagarathna,R., and Ram,A. Effects of a Holistic Yoga Program on Endocrine Parameters in Adolescents with Polycystic Ovarian Syndrome. International journal on Gynecology and Obstetrics. (2012).
- Thakur Jyotsna & Masand Sameet (April 5, 2018) found the lifestyle modification: The mainstay in Polycystic Ovarian Syndrome.