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## Effect of varied yoga practices on selected physiological variable among male low back pain students

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### Abstract

The purpose of the study was to find out the effect of yoga practices on selected physiological variable among male low back pain patients. Sixty male students were selected in nagapattinam district Tamil Nadu state for the study. The subjects ranged from 15 to 18 years. The true randomized groups design was used as experimental design in which the sample was divided into three groups of twenty each. Two experimental groups: one group served as Iyengar Yogic exercises group, second group served as Sundara Yogic Exercise group underwent selected yoga practices for a period of six weeks and other group acted as a control group. The subjects were tested prior to and after the experimentation resting pulse rate. The obtained data from the experimental and control groups. Initial and final readings were statistically analyzed with analysis of covariance (ANCOVA). The experimental group had achieved a significant improvement in resting pulse rate. When compared to the control group.

**Keywords:** yogic practice. Resting pulse rate

### 1. Introduction

Modern man lives in a mental world in which the important skills of success are based on his psychological activities. Increasing pressures on human mind in the pursuit of materialistic philosophy are making inroads into the happiness of life. Moreover, the twentieth century is a revolt against the traditional practices prevalent in the past. To keep pace with the fast and vast changes that are taking place in the various disciplines, there is a tremendous demand and responsibility cast on the training system to meet the challenges of preparing men and women to achieve tasks with success and Typical warning signs of a potentially life-threatening problem are bowel and/or bladder incontinence or progressive weakness in the legs. Severe back pain (such as pain that is bad enough to interrupt sleep) that occurs with other signs of severe illness (e.g. fever, unexplained weight loss) may also indicate a serious underlying medical condition. Back pain that occurs after a trauma, such as a car accident or fall may indicate a bone fracture or other injury. Back pain in individuals with medical conditions that put them at high risk for a spinal fracture, such as osteoporosis or multiple myeloma, also warrants prompt medical attention. Back pain does not usually require immediate medical intervention.

### Methodology

For the purpose of the study. Sixty low back pain students selected nagapattinam district. Tamilnadu state. Were selected subjects. The age of the subject ranged 15 to 18 years. The true randomized group design was used as experimental design in which the subject were divided into three groups of twenty each. The two experimental group underwent yoga practices and the other group acted as a control group. The subjects were tested prior to and after experimental period on resting pulse rate to assess the selected variable given in table. The statistical analysis comparing the initial and final means of Resting Pulse Rate due to Iyengar yoga and Sundara yoga among men low back pain patients men is presented in Table I. Table F-ratio at 0.05 level of confidence for 2 and 47 (df) =3.23, 2 and 46 (df) =3.23. As shown in Table VI, the obtained pretest means on Resting Pulse Rate on Iyengar yoga group was 73.33, Sundara yoga group was 73.80 and control group was 74.07. The obtained pre test F value was 0.13 and the required table F value was 3.23, which proved that there was no significant difference among initial scores of the subjects.

**Table I:** Computation of analysis of covariance of resting pulse rate

	Iyengar Yoga	Sundara Yoga	Control Group	Source of Variance	Sum of Squares	df	Mean Squares	Obtained F
Pre Test Mean	73.33	73.80	74.07	Between	4.13	2	2.07	0.13
				Within	686.67	47	16.35	
Post Test Mean	71.07	69.93	74.13	Between	141.64	2	70.82	4.86*
				Within	611.60	47	14.56	
Adjusted Post Test Mean	71.42	69.87	73.84	Between	119.42	2	59.71	38.39*
				Within	63.77	46	1.56	
Mean Diff	-2.27	-3.87	0.07					

Significant

The obtained posttest means on Resting Pulse Rate on Iyengar yoga group was 71.07, Sundara yoga group was 69.93 and control group was 74.13. The obtained posttest F value was 4.86 and the required table F value was 3.23, which proved that there was significant difference among initial scores of the subjects.

Taking into consideration of the pretest means and posttest means adjusted posttest means were determined and analysis of covariance was done and the obtained F value 38.39 was greater than the required value of 3.23 and hence it was accepted that there was significant differences among the treated groups. Since significant differences were recorded, the results were subjected to post hoc analysis using Scheffe's Confidence Interval test. The results were presented in Table II.

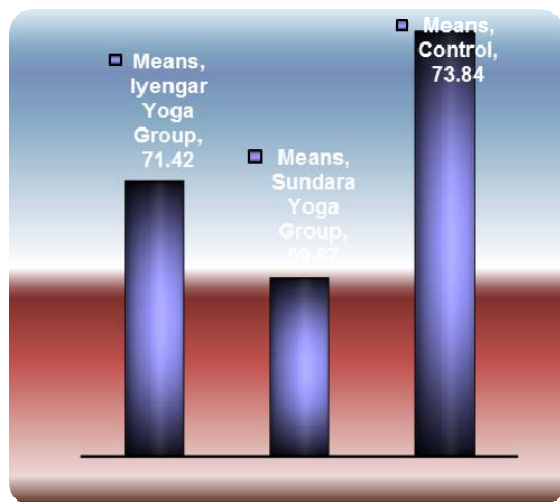
**Table II:** Scheffe's Confidence Interval Test Scores on Resting Pulse Rate

Means				Required C I
Iyengar yoga Group	Sundara yoga Group	Control Group	Mean Difference	
71.42	69.87		1.55*	1.16
71.42		73.84	2.41*	1.16
	69.87	73.84	3.96*	1.16

Significant

The post hoc analysis of obtained ordered adjusted means proved that there was significant differences existed between Iyengar yoga group and control group (MD: 2.41). There was significant difference between Sundara yoga group and control group (MD: 3.96). There was significant difference between treatment groups, namely, Iyengar yoga group and Sundara yoga group. (MD: 1.55).

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



**Fig I:** Bar diagram on ordered adjusted means on resting pulse rate

**Conclusion**

It was concluded that the varied yogic practices, such as, Iyengar and Sundara Yoga significantly improved resting pulse rate of the low back pain patients. And Sundara Yoga was found to be effective than Iyengar Yoga in stabilizing resting pulse rate of the subjects.

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