

**AN EXPLORATORY STUDY OF LOW BACK PAIN AMONG YOGA
PRACTITIONERS AND NON YOGA PRACTITIONERS IN
RELATION TO ANGER AND HEART RATE**

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Abstract

The purpose of the study is to investigate an exploratory study of low back pain among the yoga practitioners and non yoga practitioners in relation to specific life style factors. The subjects are equally assigned to random sampling procedure into two equal groups, i.e., the experimental group and control group. The experimental group does the practices in yogic practices. The control group does not practice the any kind of yogic practices for the duration of the training programme of twelve weeks. The training is given in alternate days in a week. Each session is scheduled for 60 minutes. The anger and heart rate are measured before and after the experimentation using the standardized test and standardized questionnaire. The data are analyzed by Analysis of Covariance (ANCOVA) and it is concluded that the selected yogic practices group than the control group has significant ($P < 0.05$) effect on the anger and heart rate level.

Keywords : Yogic practices, anger and heart rate, low back pain.

INTRODUCTION

Modern Yoga is said to have begun the Parliament of Religions in Chicago, 1893. During this meeting the young Swami Vivekananda from India made a deep impression on the American and he introduced the Yoga. Vivekananda became the most popular members of the Parliament, and he subsequently toured the US giving lectures on Yoga. Many Yoga masters later crossed the ocean and follow his footsteps, spreading Yoga to all corners of the continent. Yoga schools were founded and increasing numbers of people fell in love with the yogic forms of exercise. Many masters also went to Europe but for some reason the reception was not quite warm.

Yoga, in the form of Hatha Yoga, debuted in the consciousnesses of the American masses when Russian born Indra Devi, of the called "the first lady of Yoga", opened a Yoga studio at Hollywood in 1947. She taught movie stars like Gloria Swanson, Jennifer Jones and Robert Ryan, as well as educating hundreds of Yoga teachers.

AIM OF THE STUDY

The aim and objective of the study is to investigate an exploratory study of low back pain among the yoga practitioners and non yoga practitioners in relation to specific life style factors.

Methods and Materials

The sample for the present study consists of 40 low back pain sufferers from Chennai city. The subjects are selected using random sampling method. Their age ranged from 30 to 40 years. They are divided into two groups' namely Experimental group and Control group (n=40), and The Clinical Anger Scale: Construct Measurement, Reliability, and Validity: William E. Snell, Jr., Scott Gum, Roger L. Shuck, Jo A. Mosley, and Tamara L. Hite. Southeast Missouri State University, and heart rate measurement is administrated by stop watch and stethoscope equipment. Experimental group is under the practice of yogic practices for the period of 12 weeks all the morning at 6.30 to 8.00 for the period of 12 weeks . The training programme is administered for 60 to 90 minutes per session. The control group does not engage in any special activities. The load is fixed based on the pilot study. The pre test and post test are taken before and after the experimental training programme. Analysis of covariance is used as a test of significance.

Results

The data pertaining to the variables under the study is examined by the analysis of covariance for each criterion variables separately in order to determine the differences between the groups at the different stages.

Table I
ANALYSIS OF COVARIANCE FOR PRE AND POST TESTS DATA ON
ANGER OF YOGIC PRACTICES GROUP AND CONTROL GROUP.

	YOGIC PRACTICES GROUP	CONTROL GROUP	SOURCE OF VARIANCE	SUM OF SQUARES	df	MEAN SQUARES	OBTAINED F RATIO
Pre Test Mean	38.80	37.10	Between	28.90	1	28.90	0.21
			Within	5285.00	38	139.08	
Post Test Mean	28.20	40.80	Between	1587.60	1	1587.60	23.40*
			Within	2578.40	38	67.85	
Adjusted Mean	27.81	41.19	Between	1778.40	1	1778.40	44.21*
			Within	1488.34	37	40.23	
Mean Diff	-10.60	3.70					

DISCUSSIONS ON THE FINDINGS OF ANGER

Taking into consideration of the pretest means and posttest means the adjusted posttest means are determined and analysis of covariance is done and the obtained F value 44.21 is greater than the required value of 3.22. And hence it is accepted that the Yogic practices significantly improve (decreased) the anger level of the yoga practitioners.

The post hoc analysis of the obtained ordered adjusted means prove that there is significant differences existed between the Yogic practices group and Control group on pain level. This proves that due to 12 weeks of Yogic practices the anger level is significantly improved (decreased) among the yoga practitioners.

Table II
ANALYSIS OF COVARIANCE FOR PRE AND POST TESTS DATA ON
HEART RATE OF YOGIC PRACTICES GROUP AND CONTROL GROUP.

	YOGIC PRACTICES GROUP	CONTROL	SOURCE OF VARIANCE	SUM OF SQUARES	df	MEAN SQUARES	OBTAINED F
Pre Test Mean	80.90	80.40	Between	2.50	1	2.50	0.35
			Within	270.60	38	7.12	
Post Test Mean	75.80	80.65	Between	235.23	1	235.23	19.11*
			Within	467.75	38	12.31	

Adjusted Mean	75.66	80.79	Between	260.36	1	260.36	25.00*
			Within	385.27	37	10.41	
Mean Diff	5.10	0.25					

DISCUSSIONS ON THE FINDINGS OF HEART RATE

Taking into consideration of the pretest means and posttest means the adjusted posttest means are determined and analysis of covariance is done and the obtained F value 25.00 is greater than the required value of 3.22. And hence it is accepted that the Yogic practices significantly improve (decreased) the heart rate level of the yoga practitioners.

The post hoc analysis of the obtained ordered adjusted means prove that there is significant differences existed between the Yogic practices group and Control group on heart rate level. This proves that due to 12 weeks of Yogic practices the heart rate level is significantly improved (decreased) among the yoga practitioners.

CONCLUSION OF THE RESEARCH

The analysis of co-variance of anger and heart rate level indicate that the experimental group I (yogic practices), and group II (Control group), are significantly improved (decreased) the anger and heart rate level. It may be due to the effect of Yogic practices. The yogic practices can be used not only as part of a program to improve (decreased) the anger and heart rate level, but also as a way to assist in attaining other goals.

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