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EFFECT OF HATHA YOGA SADHANA AND SIMPLIFIED KUNDALINI YOGA ON SELECTED PHYSIOLOGICAL VARIABLE AMONG GERIATRIC MEN WITH LOW BACK ACHE

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ABSTRACT

The purpose of the present study was to find out the effect of hatha yoga sadhana and simplified kundalini yoga on selected physiological variable among geriatric men with low back ache. The study was conducted on 45 Geriatric men with low back ache Totally three groups, namely, control & experimental group I & II, consisting or 15 Geriatric men with low back ache underwent six weeks practice in Hatha yoga sadhana and simplified kundalini yoga whereas the control group did not under go any type of training. The pulse rate was measured before and after the experimentation using the standard equipment (Citizen) . The data were analyzed by Analysis of Co-variance (ANCOVA) and it was concluded that the Hatha yoga sadhana and simplified kundalini yoga had significant ($P < 0.05$) effect on the Pulse rate level.

Keywords: Hatha Yoga Sadhana and Simplified Kundalini Yoga, Pulse Rate

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1. INTRODUCTION

Back pain is functional disorder. In this problem pain felt in the back that usually originates from the muscles, nerves, bones, joints or other structures in the spine. We 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.

Yoga means the experience of oneness or unity with inner being. This unity comes after dissolving the duality of mind and matter into supreme reality. The individual approaches truth by a science. The aim of all yoga practice is to achieve truth where the individual soul identifies itself with the supreme soul or God. Yoga has the surest remedies for man's physical as well as psychological ailments. It makes the organs of the body active in their functioning and has good effect on internal functioning of the human body. Yoga is a re-education of one's mental process, along with the physical.

2. STATEMENT OF THE PROBLEM

The purpose of the study was to find out the effect of Hatha yoga sadhana and simplified kundalini yoga on pulse rate among Geriatric men with low back ache.

HYPOTHESIS

It was hypothesized that there would be a significant differences on Pulse rate among male Geriatric men with low back ache due to Hatha yoga sadhana with and without simplified kundalini yoga groups than the control group.

3. METHODOLOGY

For the purpose of this study, forty-five Geriatric men with low backache were chosen on random basis from Chennai only. Their age group ranges from 60 to 65. The subjects were divided into three group of fifteen each. The experimental group I would undergo Hatha yoga sadhana practices with simplified kundalini yoga and the experimental group II undergo Hatha yoga sadhana practices and third group consider as control group not attend any practices, and the pre test and post test would be conducted before and after the training. Training would be given for six weeks. It would be found out finally the effect of Hatha yoga sadhana sadhana and simplified kundalini yoga on Pulse rate among Geriatric men with low back ache in scientific method. The standardized equipment (Citizen) measured for Pulse rate. The collected data were statistically analyzed by using analysis of covariance (ANCOVA).

4. TRAINING SCHEDULE

Experimental Group I : Hatha yoga sadhana with simplified kundalini yoga
Experimental Group II : Hatha yoga sadhana without simplified kundalini yoga
Group III : Control Group (No Training).

TABLE – I
COMPUTATION OF ANALYSIS OF COVARIANCE AND POST HOC TEST ON PULSE RATE
(Scores in beats per minute)

The statistical analysis comparing initial and final means of Pulse rate due to Hatha yoga sadhana and simplified kundalini yoga among Geriatric men with low back ache is presented in Table I.

Test	Exp. Gr. I	Exp. Gr. II	Cont. Group	Source of variance	Sum of squares	Degree of freedom	Means squares	Obtained F value
PRE TEST	87.93333	88.27	86.53	B	25.38	2	12.689	1.51
				W	353.60	42	8.42	
POST TEST	80.26667	82.33	88.00	B	480.93	2	240.47	15.58*
				W	648.27	42	15.43	
ADJUSTED POST TEST	80.34	82.48	87.78	B	416.68	2	208.34	13.50*
				W	632.752	41	15.43	
MEAN GAIN	7.666667	5.93	1.47					

***Significant at 0.05 level of confidence. * F (0.05) (2, 42 and 2, 41) = 3.23.**

Since significant improvements were recorded, the results were subjected to post hoc analysis using Scheffe's Confidence Interval test. The results were presented in Table II. 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 II.

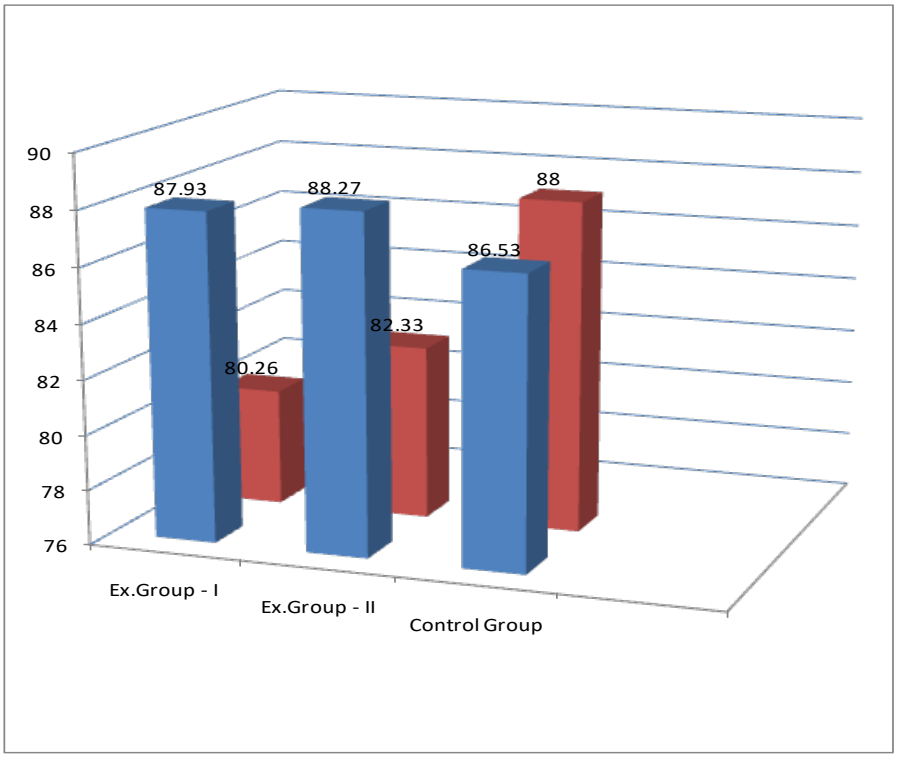
TABLE II
SCHEFFE'S POST-HOC TEST FOR PULSE RATE

Exp. Gr. I	Exp. Gr. II	Control group	Mean difference	C.I
80.34	82.48	-	2.14	3.57
80.34	-	87.78	7.44*	3.57
-	82.48	87.78	5.30*	3.57

***significant**

The ordered adjusted means were presented through bar diagram for better understanding of the results of this study in Figure 1.

FIGURE – 1
Bar diagram showing the mean difference among Experimental Group I, Experimental Group II and Control Group of Pulse rate
(Scores in beats/ minutes)



5. RESULTS AND DISCUSSIONS OF PULSE RATE

Taking into consideration of the pre test means and post test means adjusted post test means were determined and Analysis of Covariance was done and the obtained F value 13.50 was greater than the required value of 3.23 and hence it was accepted that the Hatha yoga sadhana and simplified kundalini yoga significantly improved (Decrease) the Pulse rate among male Geriatric men with low back ache at 0.05 level.

The post hoc analysis of obtained ordered adjusted means proved that there was significant differences existed between Hatha yoga sadhana with simplified kundalini yoga group and control group and Hatha yoga sadhana without simplified kundalini yoga group and control group on Pulse rate . This proved that due to six weeks of Hatha yoga sadhana with simplified kundalini yoga group and Hatha yoga sadhana without simplified kundalini yoga group on Pulse rate was significantly improved (Decrease) among Geriatric men with low back ache .

6. CONCLUSION

There was a significant improvement (Decrease) in Pulse rate of experimental groups when compared to the control group and also Hatha yoga sadhana with simplified kundalini yoga group has shown improvement than the Hatha yoga sadhana without simplified kundalini yoga group.

CONFLICT OF INTERESTS

None

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None

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