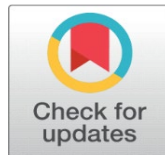
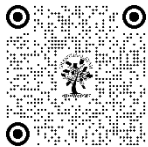


# IMPACT OF HATHA YOGA PRACTICES AND MANTRA CHANTING ON SELECTED PHYSIOLOGICAL VARIABLE AMONG AUTISTIC CHILDREN

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## ABSTRACT

The purpose of the present study was to find out the Impact of Hatha Yoga Practices and Mantra Chanting on Selected Physiological Variable Among Autistic Children. The study was conducted on 45 Autistic Children. Totally three groups, namely, control & experimental group I & II, consisting of 15 Autistic Children underwent six weeks of practice in Hatha Yoga Practices and Mantra Chanting whereas the control group did not under go any type of training. The Heart Rate was measured before and after the experimentation using the Citizen Equipment to measure the Heart Rate. The data were analyzed by Analysis of Co-variance (ANCOVA) and it was concluded that the Hatha Yoga Practices and Mantra Chanting had significant ( $P < 0.05$ ) effect on the Heart Rate level.

**Keywords:** Hatha Yoga Practices and Mantra Chanting, Heart Rate.



## 1. INTRODUCTION

Mild intellectually challenged refers to subnormal general intellectual functioning who originates during the development period and is associated with impairment of either learning and social adjustment or maturation or both. The criterion of mild intellectually challenged should be based on assessment of IQ (Intelligence quotient) and evaluation of patients, developmental history and present function including academic and vocational achievement, motor skills and social and emotional maturity.

In the modern world, a man is enjoying lot of luxuries provided by the advance technological development on one hand and facing lot of physical, mental, emotional and social disturbance on the other hand. The advance technological development has provided all kind of comforts in all walks of life, may it be home or any other place, agriculture or industries consequently, it has reduced lot of dependence on each other, caused social problems, reduced physical work, caused physical problems, working on machines causes mental problems, and working in shifts allows meeting family members like strangers, cause emotional problems. Collectively all these factors affect family life, society and nation adversely in the long run. Further, the technological advancements in all spheres of life has created lot of free/ leisure time after the working hours, at the same time the advancement in recreation gadgets like T.V., cable T.V., VIDEO-CD games, computer games have made the child least interested in physical activity resulting in so many physical, mental

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and emotional problems. To counteract both the aspect i.e. the utility of free time/ leisure time in a constructive way and to make a child more physically active in order to allow his growth and development take place proportionately, active recreation activities, other than passive ones, are must.

The Yoga path of Self – realization is one of progressively moving inward, through each of those lampshades, so as to experience the purity at the eternal center of consciousness, while at the same time allowing that purity to animate through our individuality. These five levels are called koshas, which literally means sheaths. Kosha means sheath, like the lampshades covering the light, or like the series of wooden dolls pictured below. Maya means appearance, as if something appears to be one way, but is really another. Advaita Vedanta suggests that you imagine a dark night in which you think you see a man, only to find that it was an old fence post that was hard to see at first; that is maya.

## 2. STATEMENT OF THE PROBLEM

The purpose of the study was to find out the effect of Hatha Yoga Practices and Mantra Chanting on Heart Rate among Autistic Children.

## HYPOTHESIS

It was hypothesized that there would be a significant difference on Heart Rate among Autistic Children due to Hatha Yoga Practices and Mantra Chanting groups than the control group.

## 3. METHODOLOGY

The purpose of the study was to find out the effect of Hatha Yoga Practices and Mantra Chanting on Heart Rate among Autistic Children. For the purpose of this study, forty-five Autistic Children were chosen on random basis from Kerala. Their age group ranges from 8 to 12.

The subjects were divided into three group of fifteen each. The experimental group I would undergo Hatha Yoga Practices with Mantra Chanting and the experimental group II undergo Hatha Yoga Practices without Mantra Chanting 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 Practices and Mantra Chanting on Heart Rate among Autistic Children in scientific method. The visual analog scale measured for Heart Rate. The collected data were statistically analyzed by using analysis of covariance (ANCOVA).

## TRAINING SCHEDULE

Experimental Group I : Hatha Yoga Practices with Mantra Chanting

Experimental Group II : Hatha Yoga Practices without Mantra Chanting

Group III : Control Group ( No Training).

## COMPUTATION OF ANALYSIS OF COVARIANCE AND POST HOC TEST ON HEART RATE

The statistical analysis comparing initial and final means of Heart Rate due to Hatha Yoga Practices and Mantra Chanting among Autistic Children is presented in Table I.

TABLE – I

ANALYSIS OF COVARIANCE OF THE MEANS OF TWO EXPERIMENTAL GROUPS AND THE CONTROL GROUP IN HEART RATE

Test	Ex. Group. I	Ex. Group. II	Control group	Source of variance	df	Sum of square	Mean square	F
Pre-test mean	95.533	95.000	95.467	B	2.533	2	1.266	0.1205
				W	441.46	42	10.511	
Post-test mean	90.200	92.267	94.600	B	145.38	2	72.688	19.208*
				W	158.93	42	3.7841	
Adjusted mean	90.20	92.27	94.60	B	145.44	2	72.72	18.78*
				W	158.69	41	3.8706	

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

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.

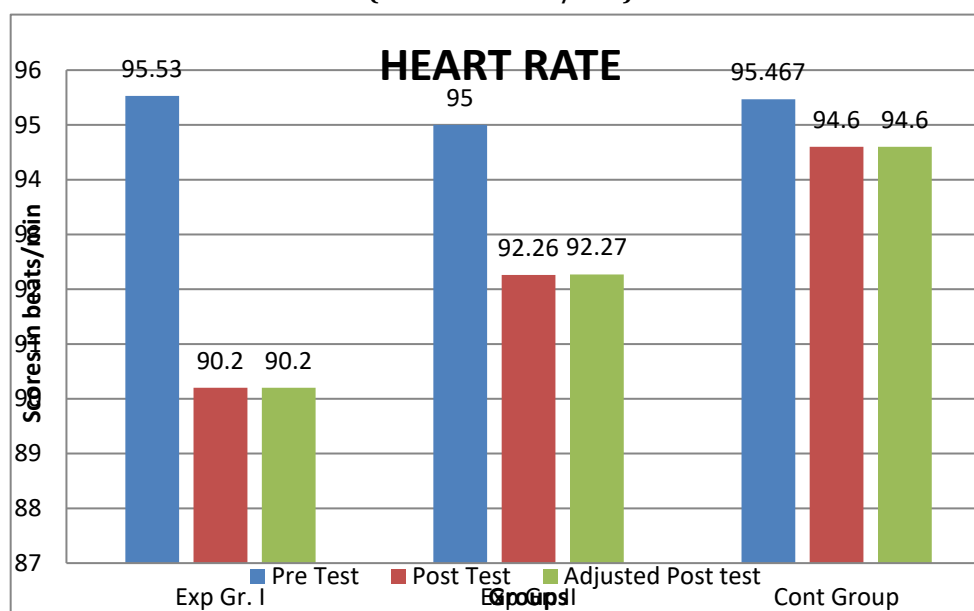
**TABLE II**  
**SCHEFFE'S POST-HOC TEST FOR HEART RATE**

Ex. Group. I	Ex. Group. II	Control group	Mean Difference	CI
90.20	92.27		2.079	2.084
90.20		94.60	4.402*	2.084
	92.27	94.60	2.323*	2.084

\* 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 1.

**FIGURE - 1**  
**BAR DIAGRAM SHOWING PRE, POST AND ADJUSTED POST-TEST VALUES ON HEART RATE**  
(Scores in beats/min)



#### 4. DISCUSSION ON THE FINDINGS OF HEART RATE

The Analysis of Co-variance of Heart Rate indicated that experimental group I (Hatha Yoga Practices with Mantra Chanting), experimental group II (Hatha Yoga Practices without Mantra Chanting), were significantly improved (Decrease) than the control group on Heart Rate. It may be due to the effect of Hatha Yoga Practices with Mantra Chanting and Hatha Yoga Practices without Mantra Chanting Practices.

The findings of the study showed that the experimental group I (Hatha Yoga Practices with Mantra Chanting) had improvement (Decrease) Heart Rate more than the experimental group II (Hatha Yoga Practices without Mantra Chanting Practices).

#### 5. CONCLUSION

There was a significant improvement (Decrease) in Heart Rate of experimental groups when compared to the control group. Hatha Yoga Practices with Mantra Chanting group has shown improvement than the Hatha yoga practices without Mantra Chanting.

## CONFLICT OF INTERESTS

None.

## ACKNOWLEDGMENTS

None.

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