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

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#### DOI

10.29121/shodhkosh.v5.i5.2024.453 1ccc

**Funding:** This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

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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 physical 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 practice in Hatha Yoga Practices and Mantra Chanting whereas the control group did not under go any type of training. The Acquisition was measured before and after the experimentation using the self-structured questionnaire to measure the Acquisition. 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 Acquisition level.

Keywords: Hatha Yoga Practices and Mantra Chanting, Acquisition

### 1. INTRODUCTION

Yoga refers to traditional physical and mental disciplines originating in India. The word is associated with meditative practices in Hinduism, Buddhism and Jainism. In Hinduism, it also refers to one of the six orthodox (āstika) schools of Hindu philosophy, and to the goal toward which that school directs its practices. In Jainism it refers to the sum total of all activities mental, verbal and physical. Major branches of yoga in Hindu philosophy include Raja Yoga, Karma Yoga, Inana Yoga, Bhakti Yoga, and Hatha Yoga. Raja Yoga, compiled in the Yoga Sutras of Patanjali, and known simply as yoga in the context of Hindu philosophy, is part of the Samkhya tradition. Many other Hindu texts discuss aspects of yoga, including Upanishads, the Bhagavad Gita, the Hatha Yoga Pradipika, the Shiva Samhita and various Tantras.

With the diagnosis of Autism being on the rise it is very important that we find, research and implement techniques to help these children in their daily lives. Yoga, including asana (postures) and pranayama (breathing techniques), is a technique that can greatly benefit a child with Autism throughout their entire life. Yoga can teach a child to breath and gain back some control over their Behaviour, helping with self-esteem and self-worth. Breathing skill are wonderful to learn for when children with Autism are anxious in social situations or starting to feel angry. Yoga can help with balance and focus which can help with concentration and attention and increase cognitive skills. Transitions times are often

difficult for a child with Autism and this is a great time to implement yoga and breathing skills. Teaching a child relaxation and how to quiet their minds can help with sleep, stress and an overall feeling of well-being.

#### 2. STATEMENT OF THE PROBLEM

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

#### **HYPOTHESIS**

It was hypothesized that there would be a significant difference on Acquisition 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 Acquisition among Autistic Children. For the purpose of this study, forty-five Autistic Children were chosen on random basis from Kerala only. 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 Acquisition among Autistic Children in scientific method. The self structured questionnaire measured for Acquisition. 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).

## 4. COMPUTATION OF ANALYSIS OF COVARIANCE AND POST HOC TEST ON ACQUISITION

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

TABLE – I ANALYSIS OF <u>COVARIANCE OF THE MEANS OF TWO EXPERIMENTAL GROUPS AND THE CONTROL GROUP IN ACQUISITION</u>

Test	Ex. Group. I	Ex. Group. II	Control group	Source of variance	df	Sum of square	Mean square	F
				В	3.511111	2	1.755556	
Pre-test	9.933	9.267	9.467					0.626
mean				W	105.6	42	2.8	
				В	2136.04	2	1180.822	
Post-test	25.933	20.267	9.333					101.87*
mean				W	411.20	42	11.59048	
				В	2082.71	2	1162.203	
Adjusted								98.484*
mean	25.79	20.37	9.37	W	396.4	41	11.8009	

<sup>\*</sup>  $F_{(0.05)}$  (2,42 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.

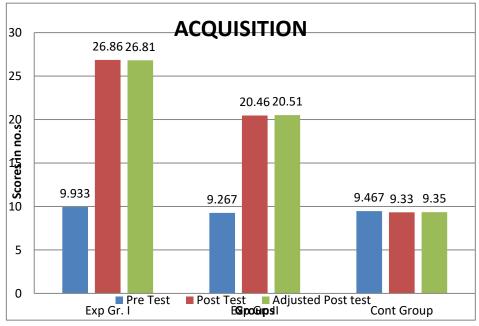
TABLE II SCHEFFE'S POST-HOC TEST FOR ACQUISITION

Ex.	Group. I	Ex. Group. II	Control group	Mean Difference	CI
	25.79	20.37		5.417*	
	25.79	-	9.37	16.425*	3.29
		20.37	9.37	11.008*	

<sup>\*</sup> 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 ACQUISITION



## 5. DISCUSSION ON THE FINDINGS OF ACQUISITION

The Analysis of Co-variance of Acquisition indicated that experimental group I (Hatha Yoga Practices with Mantra Chanting), experimental group II (Hatha Yoga Practices without Mantra Chanting Practices), were significantly improved (Increase) than the control group on Acquisition. 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 (Increase) Acquisition more than the experimental group II (Hatha Yoga Practices without Mantra Chanting).

#### 6. CONCLUSION

There was a significant improvement (Increase) in Acquisition 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.

#### REFERENCES

- Ashwood P, Wills S, van de Water J. The immune response in autism: A new frontier for autism research. J Leuk Biol. 2006:80:1–15.
- Eswaramoorthy, A. & Suresh Kumar, M. (2020). Effect of yogic practices and aerobic training on flexibility among physical education students. Purakala, 31,8, 417-420.
- Gepner B, Féron F. Autism: A world changing too fast for a mis-wired brain? Neurosci Biobehav Rev. 2009;33:1227–42. Goldeberg L. Creative relaxation a yoga based program for regular and exceptional student education. Int J Yoga Ther. 2004;14:67–78.
- Kumar, MS. A Quantitative Analysis of the Impact of Yoga and Aerobic Exercise on the Vital Capacity of School Boys, International Journal of Applied and Advanced Scientific Research, International Peer Reviewed Refereed Research Journal, Vol 9, No. I, 2024, 23-28.
- Kumar, MS. Ekambaram, Rameshkumar, P Duraisami, R Jayachandran, Effect of yogic practices therapeutic exercise and combined practices on resting pulse rate among low backache men, Vol 38, No.4, 2023, 816-820.
- Kumar, MS. Influence of Yoga Practices on Blood Pressure Among Rural College Girls, Star International Research Journal, Vol. 5, No.1, 2017.
- Kumar, MS. Influence of Yoga Practices on Blood Pressure Among Rural College Girls. Star International Research Journal, Vol 5, No.1, 2017, 6-9.
- Kumar, MS. Resting Heart Rate Effects of Yogic Practices Involving Resistance and Plyometric Training on Teenage Volleyball Players, International Journal of Advanced Trends in Engineering and Technology, International Peer Reviewed Refereed Research Journal, Vol 9, no. 1, 2024, 15-19.
- Manzi B, Loizzo AL, Giana G, Curatolo P. Autism and metabolic diseases. J Child Neurol. 2008;23:307–14.
- Oldenberg L. Use of yoga with occupational therapy. Int J Yoga Ther. 2004;12:71–7.
- Penn HE. Neurobiological correlates of autism: A review of recent research. Child Neuropsychol. 2006;12:57–79.
- Siegel B. The world of the autistic child. New York: Oxford University Press; 1996.
- Suresh, Kumar M. (2019). Effect of yogic practices on selected lung volumes among asthmatic men. The International journal of analytical and experimental modal analysis, XI,VII, 1286-1290.
- Vijayarani, CA. V Vallimurugan & MS Kumar, Influence of Yogic Practices on Selected Physiological and Psychological Variables of Adolescent Boys, Recent Research in Science and Technology, Vol 3, No.1, 2012,42-44.
- Vishali, S. S Selvalakshmi, MS Kumar, Studies on the effect of yogic practices on a psychological and academic-related variable of the tobacco smoking male students, Journal of Xidian University, Vol 16, No.6, 2020, 2519-2535.