Original Article ISSN (Online): 2582-7472

# IMPACT OF ASTANGA YOGA AND KAYAKALPA PRACTICES ON SELECTED PSYCHOLOGICAL VARIABLE AMONG MALE GERIATRIC PEOPLE

C. Moorthy, Dr. V. Duraisami

<sup>1</sup>Ph.D., Scholar, Department of Yoga, Tamilnadu Physical Education and Sports University, Melakottaiyur, Chennai – 127 <sup>2</sup>Professor & Head, Department of Yoga, Tamilnadu Physical Education and Sports University, Melakottaiyur, Chennai-127





#### **Corresponding Author**

Mr. C. Moorthy

#### DOI

10.29121/shodhkosh.v5.i4.2024.199

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

**Copyright:** © 2024 The Author(s). This work is licensed under a Creative Commons Attribution 4.0 International License.

With the license CC-BY, authors retain the copyright, allowing anyone to download, reuse, re-print, modify, distribute, and/or copy their contribution. The work must be properly attributed to its author.



## **ABSTRACT**

According to traditional Indian culture, the life span of human being is a hundred years (Holger R. Stub., 1982). The Dharmasastra, as given by Manu – the law giver, the life span of a man is divided into four stages. As'rama, a Sanskrit word, refers to the period in which a person remains in a certain role. 'S'rama" signifies the efforts needed to carry out a role and the vowel 'A', connotes the time at which such efforts begun and the time from which such efforts are no longer required. The study was undertaken with the aim to observe the impact of astanga yoga and kayakalpa practices on selected psychological variable among male geriatric people. For this study totally 45 male geriatric people were selected as subjects from Chennai. Their age ranged between 60 to 70 years. They were divided in to three groups. Experimental group I -, Experimental group II- astanga yoga with and without kayakalpa practices and group III -control group (no intervention). The data was collected from three groups prior to training and after 6 weeks of astanga yoga with and without kayakalpa practices. Analysis of covariance was used to find out the significant difference between the three groups. The level of significance at 0.05%. The results proved that the regular astanga yoga with kayakalpa practices helped to significantly reduce the psychological variable in stress.

**Keywords:** Astanga Yoga with Kayakalpa Practices, Stress

## 1. INTRODUCTION

From ancient times to present day, what constitutes as ageing has significantly varied. Many philosophers and theoreticians went about classifying the human life into different stages of life. For example, the Roman poet Horace in his famous poem 'Ages of Man' represents man's age in four stages: the child, the youth, the man and the old man. (Cokayne, 2005) The old man is depicted the most negatively, as someone who is bitter, feeble and miserable. Talmud, the written document on Jewish Torah claims that man goes through six stages in life, namely, the infant, the child, the boy, the young man, the man and the old man. The old man is described as one who becomes grave, humbled and distasteful. (Clouston, 1890) In 6th Century B.C. Pythogoras compared human lives to different seasons, likening the four different seasons – spring, summer, autumn and winter to childhood, adolescence, adulthood and old age, respectively. (Gollnick, 2005). Under Buddhist philosophy, the stage of life is divided by ten, naming each decade as follows: the tender

decade, the sport decade, the beauty decade, the strength decade, the understanding decade, the decade of decline, the stooping decade, the bent decade, the decade of dotage, and lastly, the prone decade. (Dhammika) While other philosophies cast a deleterious aspect to the older stages of man's life, the Buddhist philosophy portrays an elderly person as someone who has overcome the material and sensual requirements of the body and as someone who is on his way to finding spiritual peace and joy.

## 2. PURPOSE OF THE STUDY

The present study was designed to find out the impact of astanga yoga and kayakalpa practices on selected psychological variable among male geriatric people.

## 3. HYPOTHESIS

- 1. It was hypothesized that there would be significant differences on selected psychological variable Stress among Male geriatric people due to astanga yoga with and without kayakalpa practices groups than the control group.
- 2. It was hypothesized that there would be significant differences on selected psychological variable in stress among Male geriatric people due to astanga yoga with kayakalpa practices group than the astanga yoga without kayakalpa practices group.

## 4. METHODOLOGY

For the purpose of the study, 45 Male geriatric people from Chennai aged between 60 to 70 years were selected.. They were equally divided into three groups: experimental group I (astanga yoga with kayakalpa practices), Experimental group II (astanga yoga without kayakalpa practices) and control group (no intervention).

Astanga yoga with kayakalpa practices such as prayer, loosening exercises, Suryanamaskar, Asanas, Pranayama, meditation and relaxation were given to the experimental groups for the period of six weeks. The training scheduling comprises of six days per week for the maximum of one hour for six weeks. The data were collected before training as pre-test from three groups. After six weeks of astanga yoga, data were again collected from all the experimental groups and control group. stress is a measure by standard questionnaire. Analysis of covariance (ANCOVA) was used to find out the significant differences among groups. The level of significance was fixed at 0.05%.

#### 5. RESULT AND DISCUSSION

Table I COMPUTATION OF ANALYSIS OF COVARIANCE OF THE TWO EXPERIMENTAL GROUPS AND CONTROL GROUP ON STRESS (scores in marks)

Test	Exp. Gr. I	Exp. Gr. II	Cont. Group	Source of variance	Sum of squares	Degree of freedom	Means squares	Obtained F value
	108.6	110.00	106.20	В	110.80	2	55.400	0.46
PRE TEST	100.0	110.00	100.20	W	5056.00	42	120.38	0.40
				В	2968.84	2	1484.42	
POST TEST	84.066	87.07	102.60	W	3721.47	42	88.61	16.75*
ADJUSTED				В	3404.21	2	1702.10	
POST TEST	83.91	86.25	103.58	W	2593.96			26.90*
					8	41	63.27	
MEAN GAIN	24.533	22.93	3.60					

<sup>\*</sup>significant.

As shown in Table, the obtained F value on the scores of pretest means 0.46 was less than the required table of 3.22 value ,which proved that the random assignment of the subjects were successful and their scores in stress before the training were equal and there was no significant differences.

The obtained F value on post test means was 16.75, which was greater than the required table value of 3.22 the study was significant.

<sup>\*</sup>Significant at 0.05 level of confidence. \* F(0.05) (2,42 and 2, 41) = 3.23.

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 26.90 was greater than the required table 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 the Table

Table II SCHEFFE'S POST-HOC TEST ON STRESS

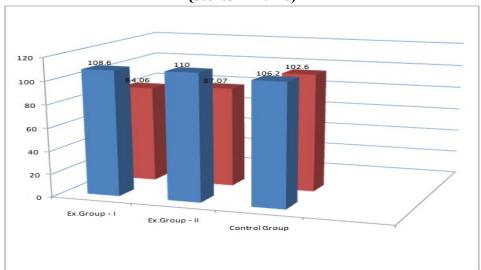
Exp. Gr. I	Exp. Gr. II	Control group	Mean difference	C.I
83.91	86.25	-	2.34	7.23
83.91	-	103.58	19.67*	7.23
-	86.25	103.58	17.33*	7.23

<sup>\*</sup>significant

The post hoc analysis of obtained ordered adjusted means proved that there was significant differences existed between astanga yoga with kayakalpa practices group and control group and there was significant differences existed between astanga yoga without kayakalpa practices and control group and there was significant differences existed between astanga yoga with kayakalpa practices group and astanga yoga without kayakalpa practices group on stress.

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

Figure 1
Bar diagram showing the mean difference among Experimental Group I,
Experimental Group II and Control Group of Stress
(Scores in marks)



## 6. DISCUSSION ON THE FINDINGS OF STRESS

As shown in Table, the obtained F value on the scores of pretest means 0.46 was less than the required table of 3.22 value, which proved that the random assignment of the subjects were successful and their scores in stress before the training were equal and there was no significant differences.

The obtained F value on posttest means was 16.75, which was greater than the required table value of 3.22 the study was significant.

Taking in to consideration of the pretest means and posttest means adjusted posttest means were determined and analysis of covariance was done and the obtained F value 26.90 was greater than the required table value of 3.23 and hence it was accepted that there was significant differences among the treated groups compared to the control group.

## 7. DISCUSSION ON HYPOTHESIS

- 1. The first hypothesis results shows that the calculated 'F' value is greater than the table value on the psychological variable among Male geriatric people for post test scores as stress is decreased. This proves that there was significant difference between the experimental groups and control group. Hence the first hypothesis was accepted at 0.05 level of significance.
- 2. The second hypothesis results proved that the post mean differences between experimental group I, experimental group II, and control group III were found to be greater than the Scheffe's common interval on the selected psychological variable as stress decreased. This proves that there was significant difference between the experimental group I and experimental group II. Hence the second hypothesis was accepted at 0.05 level of confidence.

## 8. CONCLUSION

The six weeks astanga yoga and kayakalpa practices significantly reduced the psychological variable in stress in the post test data of experimental groups, compared to the control group. The post hoc analysis of the results proved that the astanga yoga with kayakalpa practices (experimental group I) was effective than the astanga yoga without kayakalpa practices (experimental group II) among Male geriatric people.

## **CONFLICT OF INTERESTS**

None

## **ACKNOWLEDGMENTS**

None

## REFERENCES

Desikhachar, T.K.V, (2001), *Yogayajnavalkya Samhita*, Krishnamachari Yoga Mandiram India Desikharchar, T.K.V, (1987), *Patanjali's Yogasutras*, New Delhi: YogAffiliated East West Press Pvt Limited Deussen, P. (1997). *Sixty Upanishad of the Veda*. Motilal Banarasidass.

DHS Program. (2015). Servey Search. Retrieved from Demographics and Health Survey, US.

Elavsky, S., McAuley, E., & Diener et al, E. (2005). Physical activity enhances long-term quality of life in older adults: efficacy, esteem, and affective influences. *Annals of Behavioral Medicine*, 138-145.

Eminent Contributors, (2009), Meditation and its preparation, Advaita Ashrama

Fernandez-Ballestros, R. (1997). Aging and Quality of Life. Internation Encyclopedia of Rehabilitation.

Figueira, H., Figureira, J., Mello, D., & Dantas, E. (2008). Qaulity of Life Throughout Ageing. *Acta Medica Lituanica*, 169-172.

Gaines, A. (2015). What Is Cognitive Decline? - Definition, Causes & Symptoms. Retrieved from Study.com.

Gambhirananda, Swami. (2002). Taittiréya Upaniñad. Calcutta: Advaita Ashrama.

Gisutini, M., & Eloise, L. (2009). *Ageing today: a new challenge for tommorow*. Rome: ISTITUTO SUPERIORE DI SANITÀ.

Gollnick, J. (2005). Religion and Sprituality in the Life Cycle. Peter Lang. Holger R. Stub., T. (1982). Social Forces.

Howieson, D. B. (2015). Cognitive Skills and the Aging Brain: What to Expect. Cerebrum.