



Effect of Integrated Yoga Module on Somatic Cognitive and Affective Anxiety among Elderly Men Living in Old Age Homes

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Abstract

The purpose of the study was to investigate the effect of sixteen weeks Integrated Yoga module intervention on elderly men living in old age homes. It was hypothesized that there would have been a significant effect of sixteen weeks of Integrated Yoga programme on anxiety among elderly men living in old age homes. For the present study thirty (n=30) untrained elderly men were selected as subjects at random from the Government Old Age Homes of Kannur District, Kerala under the age range of 65 to 70 years. Pre test – post test randomized group design which consists of control group and experimental group was used for the present study. The subjects were randomly assigned to two equal groups of fifteen each (n=15) and named as Yoga Group (YG) and Control Group (CG). Group 'YG' underwent Integrated Yoga training and Group 'CG' did not undergo any training program rather than their normal daily routine work. Somatic, cognitive and affective anxiety was assessed by using Geriatric Anxiety scale. The data was collected before and after sixteen weeks of training. The data was analyzed by applying Analysis of Co-Variance (ANCOVA) technique to find out the effect of Integrated Yoga module programme on somatic, cognitive and affective anxiety among elderly men living in old age homes. The level of significance was set at 0.05. The result showed that there was a significant reduction in the level of anxiety in the Yoga group while there was no significant change in the Control group. On the basis of findings and within the limitations of the study it was concluded that practice of Integrated Yoga Module can reduce anxiety at cognitive, somatic and affective levels in elderly men.

Keywords: Integrated Yoga, Module, somatic, cognitive, affective, anxiety.

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Introduction

The historical studies on the origin of yoga have concluded that there is no exact evidence about the origin of Yoga. Hence it is presumed that Yoga has come from time immemorial. Yoga is universal and not associated with a particular religion. It is because of the contributions of the great sages of India that made Yoga a science of living. Maharshi Patanjali codified the concepts of Yoga which were scattered in Vedas, Upanisads, Religions etc and made it as a systematic approach called 'Yoga Sutras', popularly known as 'Astanga Yoga'. It describes practical methods to control the mental modifications to be free from psychophysical and neurological disturbances such as ignorance, ego, attraction, aversion and fear of death. Yoga practice encompasses healthy postures, breathing techniques, and meditations besides the right way of cleansing the body, the proper diet. The culmination of Yoga is Self – Realization. Yoga is a way of life, a culture and a healthy lifestyle. Several studies have concluded that daily

practice of yoga keeps a person in complete health.

Anxiety symptoms are highly prevalent among older people and are associated with various psychosomatic diseases. The obvious reasons for anxiety for the elderly are that they are getting neglected by their own loved ones and they are either sent or forced to stay in old age homes. Lack of care, lack of emotional support, lack of economic support etc are the predisposing factors for anxiety which lead to serious anxiety disorders. Anxiety has been implicated as a contributor to many psychosomatic diseases, decreased quality of life, even with pharmacologic treatment. Yoga, a non-pharmacological therapy, is an excellent tool to alleviate anxiety and the results are promising. Anxiety is a psychological and physiological state characterized by disturbances in cognitive, somatic, affective or emotional components. Cognitive anxiety comes from negative thoughts, forgetfulness, loss of confidence etc, while somatic anxiety comes from physical or physiological disturbances such as stomach pain, increased blood pressure, muscle tension and affective anxiety are caused due to emotional instability.

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Methodology

The study was conducted with thirty (n=30)

untrained elderly men selected randomly from the Government Old Age Home, Azhikode and Santhvanam Old Age Home, Poothappara of Kannur District ,Kerala under the age range of 65 to 70 years. Pre test – post test randomized group design which consists of control group and experimental group was used for the present study. The subjects were randomly assigned to two equal groups of fifteen each (n=15) and named as Yoga Group (YG) and Control Group (CG). Group 'YG' underwent Integrated Yoga training and Group 'CG' did not undergo any training program rather than their normal daily routine work. Somatic, cognitive and affective anxiety was assessed by using Geriatric Anxiety scale (GAS) developed by Segal. The data was collected before and after sixteen weeks of training. The integrated yoga training schedule consisting of selected asanas,

pranayamas, mudras and meditations was prepared for the Yoga Group and administered three days in a week for one hour per day for sixteen weeks. The data was collected before and after sixteen weeks of training. The data was analyzed by applying Analysis of Co-Variance (ANCOVA) technique to find out the effect of Integrated Yoga module programme on somatic, cognitive and affective anxiety among elderly men living in old age homes. The level of significance was set at 0.05

Results

The findings pertaining to analysis of co-variance between experimental group and control group on somatic, cognitive and affective anxiety among elderly men living in old age homes for pre-post test respectively are presented in table No.I to III.

Table I. ANCOVA between Yoga and Control Groups on Somatic Anxiety of Elderly Men Living in Old Age Homes for Pre, Post and Adjusted Test

	Yoga Group	Control Group	Source of Variance	Sum of Squares	df	Mean Square	F
Pre Test Mean	23.13	23.26	BG	0.13	1	0.13	0.03
			WG	116.66	28	4.16	
Post Test Mean	12.73	23.06	BG	800.83	1	800.83	181.02*
			WG	123.86	28	4.42	
Adjusted Post Mean	12.73	23.06	BG	800.22	1	800.22	174.46*
			WG	123.84	27	4.58	

BG- Between Group Means ; WG- Within Group Means ; df- Degrees of Freedom

* Significant at 0.05 level. ; df: 1/27= 4.21

Table No. I revealed that the obtained 'F' value of adjusted post mean 174.46 was found to be significant at 0.05 level with df 1, 27 as the tabulated value of 4.21 required to be significant at 0.05 level. The same table indicated that there was a significant difference in

adjusted means of somatic anxiety of elderly men living in old age homes between experimental group and control group. The graphical representation of data has been presented in figure No.I.

Figure I. Comparisons of Pre – Test Means Post – Test Means and Adjusted Post – Test Means for Yoga and Control group in relation to Somatic Anxiety

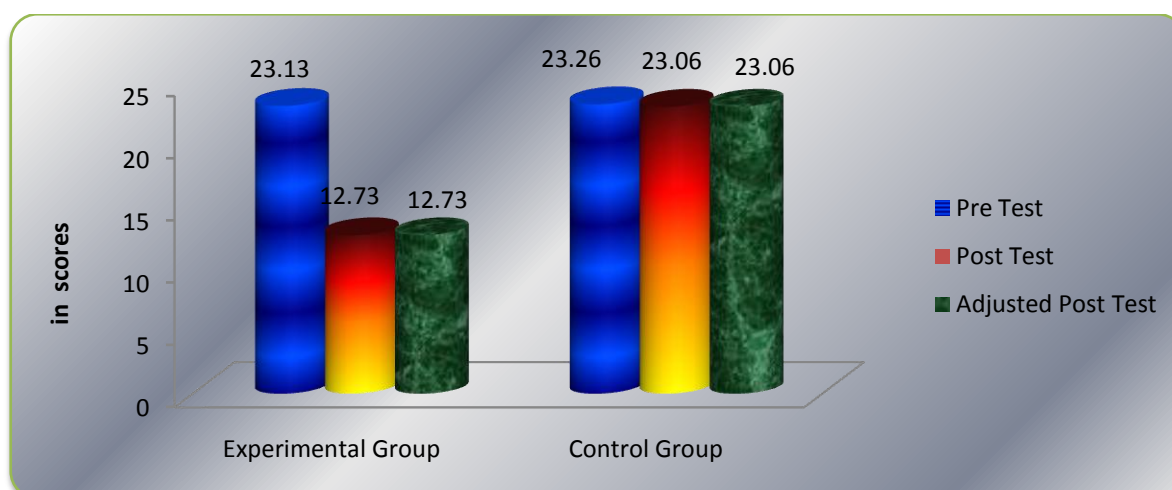


Table II. ANCOVA between Yoga and Control Groups on Cognitive Anxiety of Elderly Men Living in Old Age Homes for Pre, Post and Adjusted Test

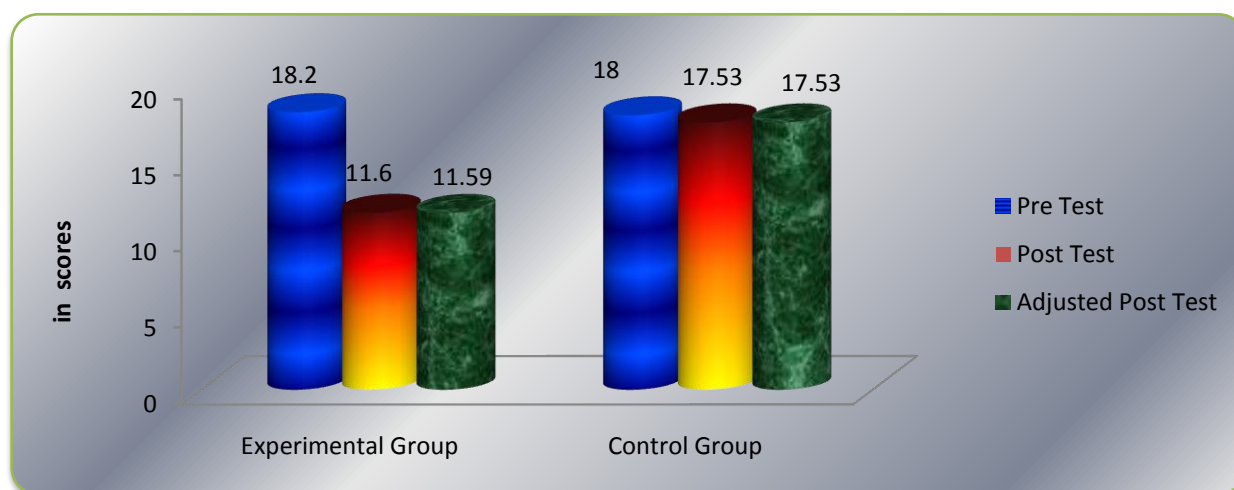
	Experimental Group	Control Group	Source of Variance	Sum of Squares	df	Mean Square	F
Pre Test Mean	18.20	18.00	BG	0.30	1	0.30	0.06
			WG	134.40	28	4.80	
Post Test Mean	11.60	17.53	BG	264.03	1	264.03	57.16*
			WG	129.33	28	4.61	
Adjusted Post Mean	11.59	17.53	BG	263.86	1	263.86	55.11*
			WG	129.25	27	4.78	

** Significant at 0.05 level.

df: 1/27= 4.21

Table No. II revealed that the obtained 'F' value of 55.11 was found to be significant at 0.05 level with df 1, 27 as the tabulated value of 4.21 required to be significant at 0.05 level. The same table indicated that there was a significant difference in adjusted means of

cognitive anxiety of elderly men living in old age homes between experimental group and control group. The graphical representation of data has been presented in figure No.II.

Figure II. Comparisons of Pre – Test Means Post – Test Means and Adjusted Post – Test Means for Yoga and Control group in relation to Cognitive Anxiety**Table III.** ANCOVA between Yoga and Control Groups on Affective Anxiety of Elderly Men Living in Old Age Homes for Pre, Post and Adjusted Test

	Experimental Group	Control Group	Source of Variance	Sum of Squares	df	Mean Square	F
Pre Test Mean	19.26	18.80	BG	1.63	1	1.63	0.48
			WG	95.33	28	3.40	
Post Test Mean	11.20	18.00	BG	346.80	1	346.80	84.88*
			WG	114.40	28	4.08	
Adjusted Post Mean	11.19	18.00	BG	342.03	1	342.03	80.76*
			WG	114.34	27	4.23	

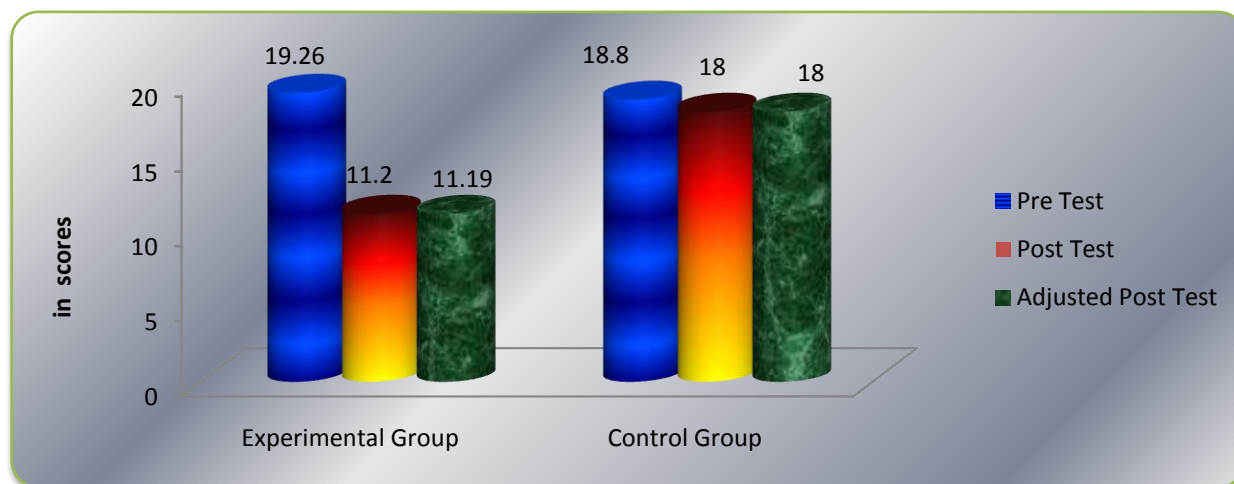
** Significant at 0.05 level.

df: 1/27= 4.21

Table No. III revealed that the obtained 'F' value of 80.76 was found to be significant at 0.05 level with df 1, 27 as the tabulated value of 4.21 required to be significant at 0.05 level. The same table indicated that there was a significant difference in adjusted means of

affective anxiety of elderly men living in old age homes between experimental group and control group. The graphical representation of data has been presented in figure No.III.

Figure III. Comparisons of Pre – Test Means Post – Test Means and Adjusted Post – Test Means for Yoga and Control group in relation to Affective Anxiety



Discussion

The result indicates that the practice of Integrated Yoga programme helped to reduce the anxiety at somatic, cognitive and affective levels. The Swara Yoga, a Yoga text on the science of breathing, discusses that when the breath flowing through left nostril the lunar or mental energy is dominant and when the breath flowing through right nostril the solar energy or the physical energy is dominant and they correspond to Para Sympathetic and Sympathetic Nervous Systems respectively. Swami Muktibodhananda (1999). Rajajeyakumar (2011) also concluded that the breathing through the right nostril called Surya Nadi Pranayama (SNP) increases the sympathetic activity and breathing through the left nostril called Chandra Nadi Pranayama (CNP) increases the parasympathetic activity and these can be appropriately advocated in many chronic cardiovascular diseases where the autonomic imbalance is one of the primary derangements. Hence the practice of Nadishodhana pranayama which is a combination of Chandra Nadi and Surya Nadi Pranayamas helped the subjects to create a homeostasis in the Sympathetic Nervous System and Para Sympathetic Nervous System that resulted in reducing anxiety. Yoga nidra has been acclaimed as one of best practices to release all kinds of tension. Dr. A K Gos h(1998) has found Alfa wave dominance in the brain during practice of Yoga nidra . Alfa brain rhythm induces psychophysical relaxation. Yoga Nidra meditation can reduce anxiety level and can bring positive changes in subjective well-being. Jadhav (2009). Hence the practice of Integrated Yoga intervention possibly helped the subjects to release their various psychophysical tensions which further helped

them to reduce their anxiety at somatic, cognitive and affective levels significantly. The findings of the present study strongly indicates that Integrated yoga module of sixteen weeks have significant effect on somatic, cognitive and affective anxiety of elderly men living in old age homes. Hence the hypothesis that there would have been a significant effect of sixteen weeks of Integrated Yoga programme on somatic, cognitive and affective anxiety among elderly men living in old age homes was accepted.

Conclusions

On the basis of findings and within the limitations of the study the following conclusions were drawn:

1. Significant effect of Integrated yoga module was found on somatic, cognitive and affective anxiety.
2. The present study reveals that regular yoga practice is an excellent technique for management of anxiety in elderly population.

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