



## EFFICACY OF YOGIC PRACTICES ON MENTAL HEALTH IN ELDERLY

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### ABSTRACT

Available research indicates that participation in a regular exercise program is an effective intervention to reduce and prevent a number of functional and health-associated impairments known to occur with advancing age. This study, therefore, has been planned if yoga could help the elderly in maintaining mental health. An experimental study was carried out on Thirty male subjects ( $n=30$ ), age ranged from 55 to 65 years, from Jamshedpur, Jharkhand were selected for this study in employing purposive sampling technique. All the selected subjects were then again randomly assigned into two equal groups, viz., Group A; (yoga training;  $n_1=15$ ) and Group B; (Control;  $n_2=15$ ). This was, in fact, a parallel group design. One independent variable had been included in this study i.e., Yoga training for a total period of 6 weeks. Before and after experiment the subjects were assessed with the help of mental health questionnaire developed by C.D. Agashe and R.D. Helede. Descriptive statistics have been applied to process the data prior to employing inferential statistics. Since there is one variables along with two testing programmes (i.e., pre-test and post-test) conducted for two different groups (control and experimental), the inferential statistics employed was ANCOVA and the level of significance was set at 0.05. The Control group did not show significant improvement in Mental Health ( $CD=0.15$ ,  $p>0.05$ ), Yoga training group could show significant improvement in Mental Health ( $CD=0.35$ ,  $p<0.05$ , Yoga training" was found better than the "Control" in Mental Health ( $CD=0.32$ ,  $p<0.05$ ) Further, Scheffe's post hoc test was employed to record comparative effects of yoga on variables. The result of mental health revealed that yoga training for a period of 6 weeks improved the mental health ability of the elderly people. This indicates that yoga might have imbibed the ability of relaxation that might have brought vasodilatation at brain with fresh blood. Thus, Yoga has significant effect on mental health of old age person.

**Keywords:** Yoga, Mental Health and Old age person

### INTRODUCTION

Exercise and aging have become important social, economic, and medical issues in recent years. The public is enjoying regular exercise in increasing numbers, and both way persons and scientists are increasingly interested in the study of exercise. Meanwhile, the American population is changing to include more aged persons. With increasing numbers of older persons (Grundy, 1983), there is increased concern about aging and health and the greater consumption of health resources by older persons (Eisdorfer 1981). In an aging society, the consequences of regular exercise are potentially profound for the individual and for the society.

Available research indicates that participation in a regular exercise program is an effective intervention to reduce and prevent a number of functional and health-associated impairments known to occur with advancing age. Functional benefits of regular exercise include increases in cardiovascular fitness, muscle strength, and functional capacity, allowing older individuals to maintain their independence and freely participate in daily activities. In addition, habitual exercise, endurance training, or both can prevent or markedly attenuate the age-related increases in risk factors for coronary heart disease. Taken together, these benefits associated with regular exercise can significantly improve the quality of life in older populations. Generally in old age, one's level of muscle strength, flexibility and cardiovascular endurance reduces along with short term memory and mental development. Obviously, such a state declines the overall level of health related physical fitness and mental health among elderly people. This study, therefore, has been planned if yoga could help the elderly in maintaining mental health.



## METHODOLOGY

The Purpose of the study was to planned if yoga could help the elderly in maintaining mental health. Thirty male subjects (n=30), age ranged from 55 to 65 years, from Jamshedpur, Jharkhand were selected for this study in employing purposive sampling technique. The criteria for inclusion and exclusion are as follows:

The subjects below 55 and above 65 years were not included.

The elderly people suffering from known serious Geriatric / health problems as ruled out by the medical practitioner were discarded.

All the selected subjects were then again randomly assigned into two equal groups, viz., Group A; (yoga training; n1= 15) and Group B; (Control; n2 = 15). This is, in fact, a parallel group design. The researcher made sure that the entire subjects were ready to go through the experimental requirements of this research project. The investigator explained details and importance of this project to the subjects who were participating in this project.

Group A received 'Yoga training' while Group B was treated as control. The researcher promised the subjects of the control group to teach yoga after the experimental period is over. Thus, the controlled subjects consented not to practice yoga during the experimental period. The experiment has been planned in three phases.

### Pre – Test (phase – I)

As the purpose of the study was to see the efficacy of yogic practices on mental health among elderly, all the subject of experimental and control groups were exposed to standard tests to measure mental health for obtaining the pre test data.

### Treatment Stimulus (phase – II)

After the pre test was over, all the subjects of experimental group were exposed to six weeks training of Yoga practices for 1 hour daily in the morning and 1 hour in the evening except Sundays.

The controlled subjects, although did not receive the above mentioned yoga training, however, were kept busy for 1 hour daily in the morning and evening except Sunday with some recreational activities and mild walking during the total period of experiment.

Following yoga training was imparted to the experimental group for total of six weeks:

Asanas

Pranayamas

Om chanting

Dharana leading itself to Dhyana.

### Post Test (Phase III)

Finally, when the treatment or training period of six weeks was over, the posttest on mental health was conducted for all the subject of two groups.

### Procedure of the Study

Pre test was conducted with consent in writing from all the subjects who were participated in this study. Each subject was given individual code number i.e. Case number and record card prepared by the investigator so that they can be identified easily. Demonstration of the test and question asked by the subjects were given and explained respectively. They were also motivated properly. Standard procedures were followed for testing all the selected variables.

The experiment was carried out on senior citizens, who were randomly divided into two equal groups. The investigator has taken help of professionally qualified physical education teachers and yoga experts to conduct pre test, training and post test. During the experiment attendance of the subjects was taken regularly and the percentage of attendance after completion of training was found satisfactory. Any question asked by the subjects has been clarified and they were found contented with the teacher. They were also motivated properly.

Treatment or training period for the subjects was six weeks. The duration of training / day was 1 hour in the morning and one hour in the evening session, 6 days a week for a total period of six weeks for the experimental group.



Instructional part was totally looked after by the qualified teachers and investigator himself. Furthermore, supervising aspect was briefed to the helping instructors before commencement of training. The control group was engaged in their regular activities like walking when the experimental group was busy in performing Yoga as treatment stimuli. As the subjects were introduced with yoga practices for the first time, a seven-day practice period for adaptation of most of the scheduled practices for the selected group was good enough. However, some of the selected yoga practices required more gradual and longer duration (7 – 10 days) for adaptation. Regularity in attendance was repeatedly checked and found satisfactory. The subjects were assembled and oriented to the objectives and necessities of the project. The schedule of testing programs was notified to the subjects and testing stations were established to gather the data. Finally, post-test was conducted. All the subjects were strictly instructed to arrive each station made, like pre-test, for collecting data on the selected variables. Same procedures, as followed in pre test, were performed for tests administration among the subject belonging to group viz., Group A and Group B.

#### Variables Selected

TABLE 01  
BEFORE AND AFTER EXPERIMENT FOLLOWING VARIABLES ON ALL THE SUBJECTS WERE ASSESSED  
WITH THE HELP OF SOME STANDARD TEST ITEMS

Variables	Tools/Method Used	Criterion measure
Mental health	Questionnaire, C.D. Agashe and R.D. Helede	Points

The participants were found really encouraged to exhibit their best effort in each of the above tests.

Independent Variables:

One independent variable had been included in this study i.e., Yoga training for a total period of 6 weeks.

Statistical Techniques

Descriptive statistics have been applied to process the data prior to employing inferential statistics. Since there are one variable along with two testing programmes (i.e., pre-test and post-test) conducted for two different groups (control and experimental), the inferential statistics employed was ANCOVA.

#### **RESULTS AND FINDINGS:**

TABLE NO.1  
THE RESULTS OF DATA ANALYSIS IN EMPLOYING DESCRIPTIVE STATISTICS

Variables	Groups			
	Yoga Group		Control Group	
	Pre-test	Post-test	Pre-test	Post-test
<b>Mental Health (Pts.)</b>	26.14 (3.05)	29.83 (3.32)	25.78 (3.79)	24.89 (4.04)

Thus, the information obtained from the measures of central tendency and dispersion, as presented in Tables 1 revealed that the training intervention i.e., “Yoga training” may have better treatment effect than the “Controls” in



improving Mental Health of old age person. However, from the above, it is not clearly evident statistically that the treatment stimulus helped to influence the variables. Therefore, inferential statistics have been employed followed by Scheffe's post hoc test.

TABLE 2  
ANALYSIS OF CO-VARIANCE OF THE MEANS OF EXPERIMENTAL AND CONTROL GROUP ON MENTAL HEALTH OF OLD AGE PERSONS

Tests	Groups Mean & SD		SoV	SoS	df	MSS	F-ratio
	Exp.	Control					
Pre Means	26.14 (1.83)	25.78 (1.51)	A	0.833	1	0.83	0.294
			W	79.33	28	2.83	
			Total	80.16	29	3.66	
Post Means	29.83 (2.16)	24.89 (1.49)	A	24.30	1	24.30	7.010*
			W	97.06	28	3.467	
			Total	121.36	29	27.76	
Adjusted Posttest Means	26.45 (2.16)	23.149 (1.55)	A	20.83	1	20.83	6.283*
			W	85.97	27	3.18	
			Corrected Total	121.36	29	24.01	

SoV- Source of variance, SoS – sum of square, df- degree of freedom, MSS- mean sum of square,

\* Significant at 0.05 level of significance, A=Among Means variance, W=Within Group variance,

F=Ratio needed for significance at 0.05 level of significance =  $df(1, 28) = 4.20$ ,

$df(1, 27) = 4.21$  There was a significant difference of type of training on the adjusted mean score of mental health of the subjects after controlling the effect of pre test score,  $F(1,27)=6.283$ ,  $p=0.05$ .



(STEPS)	3	2	1
4	0.15	0.30*	0.32*
3		0.28*	0.11
2		--	0.35*
1			--
*p<0.05, **p<0.01			

Figure 01: Scheffe's Post Hoc Test for difference between pairs of ordered means in mental health (yoga training group vs control group)

The statistical significance of Scheffe's Post Hoc test presented in Table 4.16 revealed that-

- Control group did not show significant improvement in Mental Health (CD=0.15,  $p>0.05$ ).
- Yoga training group could show significant improvement in Mental Health (CD=0.35,  $p<0.05$ ).
- "Yoga training" was found better than the "Control" in Mental Health (CD=0.32,  $p<0.05$ )

This result helps to interpret that the selected Yoga practices worked as progressive stretching as well as relaxation and it was found effective in improving Mental Health of the selected Old Age Persons. Thus, Yoga has significant effect on Mental health of Old Age Persons.

## DISCUSSION OF FINDINGS

In India old age is respected by majority of the families. However, for many of the families, old age seems to be a burden. Whatever the situation may be, the old aged persons must try to maintain their health and fitness. Nowadays, for this, the old people in city areas get many facilities viz., health club, jogging track, modern medicines etc., whereas the elderly people in village areas do not get such facilities. However, both the rural and urban areas have many limitations for maintaining the health and fitness of the old aged people. It was, therefore, thought if yoga could be useful for maintaining mental health of the elderly persons.

Thus, the result of mental health revealed that yoga training for a period of 6 weeks could improve the mental health ability of the elderly people. This indicates that yoga might have imbibed the ability of relaxation that might have brought vasodilatation at brain with fresh blood. Although the real mechanism is not known, but it is sure that yoga helped to improve the mental health of the people in old age



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