

# Effectiveness of Yoga on Psychological Wellbeing of Senior Citizens in Selected Old Age Homes of Kerala

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## ABSTRACT

This study was aimed to evaluate the effectiveness of yoga on psychological well being among senior citizens in selected old age homes. The study also finds out the association between psychological well being and selected demographic variables. The research approach adopted for the study was experimental approach with quasi experimental design. This study was undertaken in the selected old age homes, Jubilee Mandiram and Ashreya, Kottarakara at Kollam District. Conceptual framework used in the study is based on Ernestine Wiedenbach The Helping Art of Clinical Nursing Theory. Purposive sampling was used to select 60 samples for the study, 30 in experimental group and 30 in control group. The instrument used for the study had two sections including demographic profile and Self administered questionnaire- Modified PGWB Schedule to assess the level of psychological well being respectively. The intervention of yoga was administered to experimental group. A 14 days yoga session for 30 minutes was given on each day morning and evening. The yoga session comprised of relaxation exercises, pranayama including simple pranayama, anulom vilom pranayama, bhastrika, ardhamerudhandasana, makarasana, bhujangasana and shavasana. The data obtained were analysed using the descriptive and inferential statistics. The study showed that the mean post test score (47.06) is significantly higher than mean pre test score (32.23) of the experimental group and was supported with the findings of paired t test analysis as the calculated t value of 22.54 at 0.05 level of significance. The study findings revealed that yoga is effective in improving the psychological well being of senior citizens. The findings of the study revealed that the association between the psychological well being and marital status was significant in both the groups at 0.05 level. Thus it can be concluded that yoga was found to be very effective in improving psychological well being of senior citizens.

**Key Words:** psychological wellbeing, yoga, senior citizen, old age home

## INTRODUCTION

The dream of the people all over the world to live long lives is now becoming a reality due to the socio-economic development of people and advancement in sciences, particularly medical sciences. Improvement in health care technology has resulted in increased life expectancy.<sup>1,2</sup> Senior citizens always have been a focus of nursing care. Nurses are looking for answers to how they can effectively care for the older adults

Current trends in demographics coupled with rapid urbanization and lifestyle changes have led to an emergence of a host of problems faced by the elderly in India. It must be remembered that improving the quality-of-life of the elderly calls for a holistic approach and concerted efforts by the health and health-related sectors.<sup>3</sup> An ICMR Workshop (2008) on “Research and Health Care Priorities in Geriatric Medicine and Ageing” recommended that research be conducted in

areas of geriatrics especially for the improvement of general wellbeing.<sup>4,5</sup>

The increase in age brings with it in the likelihood of changes in health of all dimensions and this change may threaten the older adults, which in due course may erode their quality of life. With such changes in the dimensions of health of senior citizens the community health nurse need to determine new type of interventions that are feasible to improve the general health functioning and quality of life of the elderly. The community health nurse play an important role in the lives of senior citizens at the old age homes.<sup>6,7</sup>

Unlike other forms of exercise which strains muscles and bones, yoga gently rejuvenates the body. By restoring the body, yoga frees the mind from negative feelings caused by the fast pace of modern life. In this world geriatric population are having many problems and these limitations of them can be minimized by practicing yoga. Yoga steps produce relaxation, positive thinking, self-confidence, self-awareness, development of personality, improvement of memory, reduction of sleep deficit, patience, endurance, cheerfulness, straightforwardness, discipline and perseverance etc. Yoga maintains perfect harmony between body and mind. When there is perfect harmony between body and mind, we achieve self-realization.<sup>8,9</sup>

The investigator has cared senior citizens in hospital and home settings and found out that they face a lot of problems both physical and mental that account for decreased psychological well being. Many studies have proved that these limitations can be reduced with the practice of relaxation techniques like yoga, meditation. So the investigator is interested in this study to explore the effectiveness of yoga in improving the psychosocial wellbeing of senior citizens.<sup>1</sup>

## **MATERIALS AND METHODS**

**Research approach:** Experimental approach

**Research design:** Quasi experimental pre test post test control group design

**Setting:** Selected old age homes in Kollam district

**Population:** All senior citizens residing in old age homes of Kollam district.

**Sample size:** The sample size is 60

**Sampling technique:** Purposive sampling

**Inclusion criteria:** Senior citizens between 60 to 75 years residing in old age home, willing to participate in the study, understand and read Malayalam.

**Exclusion criteria:** Who are not healthy enough to practice yoga or those having previous knowledge and is practicing yoga.

**Duration of the study:** 6 months.

**Tool: Section A:** Sociodemographic variables and **Section B : Modified psychological general well being schedule (PGWB schedule)** is used to assess the level of psychological well being among senior citizens. This questionnaire was developed by H J Dupuy. The tool consist of 20 items in the areas of anxiety, depressed mood, positive well being, self-control, general health and vitality. The scale includes both positive and negative questions and each item has the time frame “during the last two weeks.” The three levels of psychological wellbeing are sectioned accordingly: 20-32 reflect “severe distress”; 33-46 “moderate distress”; and 47-60 “positive well being”.

**TECHNIQUES:** Self administered questionnaire, the investigator asked the subjects to answer the questionnaire (PGWB Schedule) and collected the needed data.

## RESULTS

**Table 1 : Frequency and percentage distribution of senior citizens according to their pre test level of psychological well being in experimental and control group, n = 60**

Level of psychological well being	Range of score	Groups			
		Experimental		Control	
		Frequency	Percentage	Frequency	Percentage
Severe distress	20 - 32	26	86.66%	27	90%
Moderate distress	33- 46	4	13.34%	3	10%
Positive well being	47- 60	-	-	-	-

Maximum score = 60

The data in the above table (1) depicts that majority of the sample in experimental group ( 26, 86.7%) and control group (27, 90%) had very low level of psychological well being (severe distress) in

the pre test. The data reveals that the pre test score of psychological well being of both experimental and control group were very low.

**Table 2 : Mean, mean difference, standard deviation of difference and t value between pre test and post test score. n = 60**

GROUP	MEAN		MEAN DIFFERENCE	STANDARD DEVIATION OF DIFFERENCE	t VALUE
	Pre-test	Post- test			
Experimental group	32.23	47.06	14.83	3.615	22.54

$t=2.462$  at 5% level

Table 2 depicts the paired ‘t’ test analysis, comparing the pre test and post test scores on psychological well being between senior citizens in experimental group. Data showed in the table depicts that the mean post test score(47.06) is significantly higher than mean pre test score(32.23).Table value

$t_9$  at 0.05 level of significance is 2.462. The calculated t value(22.54 ) is greater than the table value (2.462), hence research hypothesis was accepted. Thus, paired t test shows that yoga is found to be effective for improving psychological well being.

**Table 3 : Comparison of post test scores of experimental and control group, n = 60**

Post test of group	Mean	Standard deviation	df	t value
Experimental group	47.06	2.14		
			58	28.05
Control group	31.66	2.13		

Table 3 shows the independent ‘t’ test analysis, comparing the overall mean post test scores of psychological well being between the experimental and control group. In post test the mean score of experimental group was 47.06 and in control group was 31.66. On analysis of comparison of post test scores of experimental and control group t value was found to be 28.05 at df =58. The table value is 2.000. The

calculated value is greater than table value. It shows that there was a significant difference in post test scores between experimental and control group. There was a significant increase of psychological well being in the experimental group than the control group. Thus yoga is found to be effective in improving psychological well being among senior citizens in old age homes.

**TABLE 4 : Association between psychological well being and demographic variables in the experimental group.**

Demographic variables	Frequency	Level of psychological well being						Chi- square value
		Severe distress		Moderate distress		Positive well being		
		N	%	N	%	N	%	
<b>Age in years</b>								$X^2 = 1.903$ $P > 0.05$ NS
61 - 65 years	22	20	90.9	2	9.1	-	-	
66 - 70 years	7	5	71.4	2	28.6	-	-	
71 - 75 years	1	1	100	-	-	-	-	
<b>Gender</b>								$X^2 = 0.192$ $P > 0.05$ NS
Male	18	16	88.9	2	11.1	-	-	
Female	12	10	83.3	2	16.7	-	-	

<b>Religion</b>								
Hindu	15	12	80	3	20	-	-	X <sup>2</sup> = 1.298 P> 0.05 NS
Muslim	3	3	100	-	-	-	-	
Christian	12	11	91.7	1	8.3	-	-	
<b>Marital status</b>								
Married	18	18	100	-	-	-	-	X <sup>2</sup> = 9.808 P<0.05 S
Unmarried	6	3	50	3	50	-	-	
Divorce	-	-	-	-	-	-	-	
Widow/widower	6	5	83.3	1	6.7	-	-	
<b>Number of children</b>								
None	7	4	57.1	3	42.9	-	-	X <sup>2</sup> = 7.052 P>0.05 NS
One	1	1	100	-	-	-	-	
Two	6	6	100	-	-	-	-	
More than two	16	15	93.8	1	6.2	-	-	
<b>Education</b>								
Illiterate	-	-	-	-	-	-	-	X <sup>2</sup> = 4.615 P>0.05 NS
Primary	12	12	100	-	-	-	-	
Secondary	15	11	73.3	4	26.7	-	-	
Graduate	3	3	100	-	-	-	-	
<b>Previous occupation</b>								
Self employee	15	13	86.7	2	13.3	-	-	X <sup>2</sup> = 0.839 P>0.05 NS
Government	4	4	100	-	-	-	-	
Private	-	-	-	-	-	-	-	
Unemployed	11	9	81.8	2	19.2	-	-	
<b>Income</b>								
< Rs 1000	26	22	84.6	4	15.4	-	-	X <sup>2</sup> =0.710 P>0.05 NS
Rs 1000 - 2000	-	-	-	-	-	-	-	
Rs 2000 - 3000	3	3	100	-	-	-	-	
>Rs 3000	1	1	100	-	-	-	-	

The Chi square with Yates correction test shows that there is no significant association between the psychological well being and selected demographic variables except marital status. Data presented in table 15 reveals that the calculated X<sup>2</sup> in psychological well being (9.808 P <0.05) was greater than the table value which indicates that there was association between the level of psychological well being and marital status of senior citizens at 0.05 level of significance.

## DISCUSSION

### Section 1: SAMPLE CHARACTERISTICS

The study showed that the majority of senior citizens in experimental group (66.7%) and control group (63.4%) belonged to the age group of 61 - 65 years. But 70 -75 years old senior citizens accounted for the least in both experimental group (6.6%) and control group (3.3%). Males accounted for the highest in both experimental (60%) and control (63.3%) groups. The findings revealed that the majority of senior citizens, 50% in experimental and 40% in control group were

Hindus and Christians were 40% in experimental group and 50% in control group where as Muslims account the least (10%) in both experimental and control group.

The study findings indicated that majority of senior citizens, 60% in experimental and 56.7% in control group were married and 20% were unmarried in experimental group and 23.3% were unmarried in control group and 20% were widowed in experimental group and control group. In both the group, none of them were divorced. The majority of senior citizens in experimental group (53.4%) are having more than two children where as in control group majority of samples are having two children (46.7%). In both the groups 23.3% of the samples are not having children.

The study depicted that majority of senior citizens in experimental group (50%) and control group (53.4%) are having secondary education. Graduates account for the least in both experimental (3%) and control (3.3%) group. Majority of the senior citizens were self employed in experimental group (50%) where as 46.7% were self employed in control group. Majority of samples in control group (50%) were

unemployed and that off in experimental group only 30% were unemployed. The study findings indicated that majority of senior citizens in experimental group (86.7%) and control group (96.7%) are having monthly income less than Rs 1000/-.

The study findings were supported by a descriptive survey conducted in various old age homes of Thiruvananthapuram. One hundred and fifty seven inmates from eight randomly selected old age homes of district constituted the subjects for the study and the tool used for data collection was a semi-structured interview schedule. Majority (58 per cent) of the inmates were males. More than half of the sample (59 per cent) comprised young old (60 - 75 years). About 41 per cent of the inmates were illiterate or those having less than 5 years of schooling. Among males, 43 percent were never married while 8.8 percent had their partners with them in the Old Age Homes. Further, 21 percent of the males and 51 percent of the females were widowed before joining the Old Age Homes, 51 percent of the females and 8.8 percent of the males had no occupation.<sup>10</sup>

### **Section 2: LEVEL OF PSYCHOLOGICAL WELL BEING**

The study revealed that majority of the sample in experimental group (26, 86.7%) and control group (27, 90%) had very low level of psychological well being (severe distress) in the pre test. The findings showed that the pre test score of psychological well being of both experimental and control group were very low. The mean score obtained for psychological well being was 32.23 with standard deviation 2.24 for experimental group and mean score of control group was 31.76 with standard deviation 2.04. This showed that the majority of subjects in both the group had low level of psychological well being.

This finding was supported by a descriptive survey conducted on psychological well being of institutionalised elderly at Solapur. The data was collected

from 100 senior citizens residing in old age homes using PGWB schedule. The study revealed that 78.4 % had lower level of psychological well being and 22.6 % had normal level of psychological well being. The study showed that there was poor psychological well being among the institutionalised.<sup>11</sup>

### **Section 3 : EFFECTIVENESS OF YOGA ON PSYCHOLOGICAL WELLBEING AMONG SENIOR CITIZENS**

The result showed that the post test score is significantly higher than pre test score in the experimental group with the findings of paired t test analysis as the calculated t value of 22.54 which is greater than the table value (2.462) at 0.05 level of significance. The study findings revealed that yoga is effective in improving the psychological well being of senior citizens.

Further independent 't' test analysis was done to compare the overall mean post test scores of psychological well being between the experimental and control group. In post test the mean score of experimental group was 47.06 and in control group was 31.66. On analysis of comparison of post test scores of experimental and control group t value was found to be 28.05 which is significantly higher than the table value 2.000. The result also strengthened the finding of yoga to be effective in improving psychological well being.

The study findings are consistent with findings of a quasi experimental study conducted at Coimbatore. The data was collected from 60 seniors residing in old age homes by interview schedule. The study revealed that subjects who practiced yoga had shown significant increase in psychological well being than the subjects who didn't practiced yoga ( $t = 59.02$  at  $p < 0.01$ ). The study supported that yoga is a very suitable and practicable therapy for improving psychological well being among seniors<sup>12</sup>



#### **Section 4: ASSOCIATION BETWEEN THE PSYCHOLOGICAL WELL BEING OF SENIOR CITIZENS AND SELECTED DEMOGRAPHIC VARIABLES**

The findings of the study revealed that the association between the psychological well being and marital status was significant in both the groups at 0.05 level. The findings also revealed that there is no significant association between age, gender, religion, education, number of children, previous occupation and income with psychological well being among the senior citizens.

The finding was supported by the descriptive survey conducted in various old age homes of Thiruvananthapuram. One hundred and fifty seven inmates from eight randomly selected old age homes of district constituted the subjects for the study and the tool used for data collection was a semi-structured interview schedule. Majority (58 per cent) of the inmates were females. More than half of the sample (59 per cent) comprised young old (60 - 75 years). About 41 per cent of the inmates were illiterate or those having less than 5 years of schooling. Only 20 percent of the females had more than 10 years of schooling. Among males, 43 percent were never married while 8.8 percent had their partners with them in the Old Age Homes. Majority of the respondents were not willing to do any job even if they got one. Only a small portion (3 per cent) was still working. Further, 21 percent of the males and 51 percent of the females were widowed Before joining the Old Age Homes, 51 percent of the females and 8.8 percent of the males had no occupation. The study revealed that there is relationship with marital status and gender with psychological well being of senior citizens. ( $X^2 = 2.304$ ,  $P < 0.05$ ).<sup>10</sup>

#### **CONCLUSION**

The data collected showed that the mean post test scores on psychological well being were higher than the mean pre test scores. There was significant difference

between mean pre test and post test scores of subjects are the practice of yoga. ( $t = 28.05$ ,  $p < 0.05$ ). The study finding showed a very high significant difference between pre test and post test scores of psychological well being after the practice of yoga. Thus it can be concluded that yoga was found to be very effective in improving psychological well being of senior citizens.

The researcher felt a deep sense of satisfaction and fulfillment for having undertaken the study. This chapter shows that yoga is a complementary therapy which enhances the psychological well being of senior citizens. Such researches help to know more about the non-pharmacologic measures which nurses can apply while caring senior citizens and practice independently.

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