

# A Study to Assess the Effectiveness of Guided Imagery on Level of Stress Among the Elderly in Selected Old Age Homes of Aurangabad City

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## Abstract

**Statement:** A study to assess the effectiveness of Guided Imagery on level of Stress among the Elderly in Selected Old Age homes of Aurangabad city, Maharashtra. Objectives:<sup>1</sup> To assess the level of stress among the elderly.<sup>2</sup> To determine the effectiveness of Guided Imagery on level of stress among elderly.<sup>3</sup> To associate the level of stress among the elderly with their selected demographic variables.

**Hypothesis:** H<sub>0</sub>: There is no significant reduction in the level of stress among the elderly after administering guided imagery. H<sub>1</sub>: There is significant reduction in the level of stress among the elderly after administering guided imagery. Research methodology: Approach and Design: Evaluative approach. A quasi experimental nonequivalent control group design was used for study. Sampling technique: Non probable convenient sampling technique was used for selection of sample. Sampling Size: 60 (Experimental-30, Control-30). Setting: Old age homes. Reliability: Reliability of tool was done with the help of split half method (r = 0.87). Pilot Study: After reliability pilot study was conducted on 10 samples. Tool: Pre test done (Both experimental & control group) with the help of modified stress assessment scale through structural interview schedule. After assessment of stress level prior to intervention than 20 minute guided imagery given to experimental group with the help of audio tape of guided imagery CD for 14 days. On 15th day onward post test was done in experimental and control group. Results: Study finding of level of stress among the Elderly: In Experimental group 16.7% of the elderly had mild stress, more than half (56.7%) of them had moderate stress and 26.7% of them had severe stress. In control group, 40% of them had mild stress, 56.7% of them had moderate stress and 3.3% of them had severe stress. Study findings of effect of guided imagery: In pre test, in Experimental group, 16.7% of the elderly had mild stress, more than half (56.7%) of them had moderate stress and 26.7% of them had severe stress. In post test, 80% of them had mild stress and 20% of them had moderate stress. This indicates that the stress level significantly reduced after guided imagery. The 't' value was found to be 12.9 at 29 degrees of freedom. P-value at 29 degrees of freedom was 0.000. Since the p-value is small (less than 0.05), the null hypothesis is rejected. Stress score in pretest was 97.2 which reduces to 66.6 in posttest. This indicates that the level of stress of elderly improves significantly after guided imagery. The 't' value was found to be 6.3 at 58 degrees of freedom. P-value at 58 degrees of freedom was 0.000. Since the p-value is small

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(less than 0.05), the null hypothesis is rejected. The mean difference in stress score is 30.6 for experimental group which was 5.1 for control group. For experimental group the average change in stress score is significantly higher than that in control group. Conclusion: The study revealed that guided imagery is very effective and safe method to reduce the level of stress among the elderly.

**Keywords:** Assess; Guided Imaginary; Stress; Elderly; Old age homes.

## INTRODUCTION

A man's existence is usually divided into 5 main ranges particularly infancy, childhood, adolescence, adult hood and vintage age. In every of those ranges and character has to locate himself in extraordinary conditions and face extraordinary problems. In vintage age bodily power deteriorates, intellectual balance diminishes. The world's aged population is 650 million. By 2050, the "greying" population is forecast to at tain 2 billion. By 2050 approximately 80% of the aged may be residing in growing countries.<sup>1</sup>

Aging also can carry many modifications at a time whilst they are least capable of adapt to extradeit's far a famous axiom that the aged human beings have problems, now no longer simply bodily disorder. The aged human beings are at risk of emotional and strain due to the feel of loss that come from the demise of pals and own circle of relatives members, lack of outcomes, lack of autonomy in addition to from retirement.<sup>2</sup>

In greater current times, the conventional function of the own circle of relatives is being shared with the aid of using establishments inclusive of vintage age homes. It is regularly assumed, and occasionally argued, that the absence of familial care and environment result in strain amongst the citizens of vintage age homes. Stress is a first rate motive of melancholy and Alzheimer's disorder in vintage age. They has recognized a place of the mind which shrinks in vintage age ensuing in melancholy and Alzheimer's disorder. The shrinkage of a place of the mind known as the anterior cingulate cortex brings about the discharge of excessive degrees of strain hormones.<sup>1</sup>

God created our bodies with best stability and restoration ability. We have been designed with congruence and an herbal rhythm. (The rhythmic commencing and closing of the valves of the coronary heart, the coagulation of blood to shape a restoration overlaying or scab on a wound, the messaging device of our nerves which alert our brains to act are examples). Guided imagery isn't hypnosis, sorcery, witchcraft, voodoo, or demonic. It isn't delivering manipulate of your thoughts in any manner.<sup>3</sup>

But Imagery can stimulate modifications in physical capabilities together with coronary heart rate, blood strain and respiration patterns. It can assist faucet internal strengths to assist the affected person locate hope, braveness and different traits that may assist the affected person to address a lot of conditions.<sup>4</sup>

Guided imagery is a shape of targeted rest that enables creates concord among the thoughts and frame. It is a manner of focusing your creativeness to create calm, non violent pixon your thoughts, there by supplying an "intellectual escape." Guided imagery presents a effective mental approach that complements a individual's coping competencies. Imagery includes all of the senses, in addition to one's entire frame and emotions. It is a manner of viewing your ideas, feelings, studies and interpretations.<sup>5</sup>

More ever, Guided imagery is a talent that may be discovered in each inpatient and outpatient settings and it could learn with the aid of using nurses. Teaching rest competencies is regular with the idea that the sufferers who take part of their care are greater autonomous. Once its miles discovered they are able to exercise it themselves. Relaxation education is likewise cost-effective. For sufferers, the purpose of curing imagery is to update the badpix that initiate fear, helplessness and tension with superbpix of restoration and wellness that make a contribution to recovery.<sup>6</sup>

Stress control makes a specialty of decreasing the secretion of cortisol and the cate cholamine which wreck the stability of the immune device. Mental imagery, with the aid of using changing mind biochemistry, can also additionally have an impact on or modify the immune device cells. The each day periods of the guided imagery makes heavy use of the imagery in converting the participant's perceptions of the pressure via cognitive/imagery restructuring. The individual is endorsed to photograph the salubrious modifications taking place. Imagining the general feeling of fitness and wellness appears to actualize the frame is turning into toentire, healthy, beautiful and powerful.<sup>7</sup>

Within the year 2002 there had been an anticipated 605 million vintage people inside the global, of which four hundred million are dwelling in low earnings countries. Italy and Japan have the very best percentage of older men and women (approximately sixteen. 7% and sixteen% respectively within the 12 months 2003). By 2025 the variety of elderly human beings is anticipated to rise more than 1.2 billion with approximately 840 million of these in low earnings nations.<sup>8</sup> In India most effective few research were conducted, these also hospital bases. The main reasons of illness are: cataract and visual impairment (88%), arthritis and locomotive problems (40%), cardiovascular illnesses along with hypertension (18%), neurological issues (18%), breathing problem (16%), and psychiatric trouble (nine%), lack of hearing (8%). The intellectual

fitness of elderly is any other essential area in information their normal health situation. Mental health situation of the aged includes depression, delirium, psychosis & Dementia. Over 10% of India's elderly be afflicted by melancholy and forty - 50% of aged required psychotic or mental intervention.<sup>9</sup> In India although the percentages of elderly persons to the entire population is low in comparison to the advanced international locations, though, absolutely the size of elderly population is great. For the yr 2003 the SRS estimates are 7.2 % of general populace had been above the age of 60 years.<sup>10</sup> The aged populace is large in standard and developing due to advancement of health care schooling. These humans are confronted with numerous physical, psychological and social role adjustments that assignment their sense of self and ability to live happily. Many human beings revel in loneliness and despair in vintage age, both because of living on my own or because of loss of close family ties and decreased connections with their way of life of origin, which results in a lack of ability to actively take part inside the network activities. With advancing age, its miles inevitable that people lose reference to their friendship networks and they locate it greater hard to initiate new friendships and to belong to new networks.<sup>11</sup>

## REVIEW OF LITERATURE

*The extensive review of the literature has been done and arranged in the following headings,*

- Literature review related to Guided imaginary
- Literature review related to stress in elderly
- Literature review related to guided imaginary on stress

A study was conducted by Senthil Kavitha and Sasikala G. on 'effective guided imagery technique on premenstrual syndrome (PMS) was measured among college girls'. The quasi experimental one group pre test and post test research design was used for study. Sample size 20 college girls were taken for study. The non probability convenient sampling technique was used. The standardized premenstrual stress questionnaire which had 20 items used for stress assessment. Four week guided imagery visualization given to them. The result was shows that guided imagery highly effective for treatment of premenstrual syndrome in college girls.<sup>12</sup>

A study was conducted by Tusek D.L., Cosgrave D M, to examine the effectiveness of guided imagery on length of stay, pain and anxiety in cardiac surgery

patients. 100 patients were randomized into one of two groups. Participants were between the ages of 18 and 80 years, included both male and female. Group I received routine care. Group II listened to a guided imagery tape 1-3 days prior to surgery to 5 days post up. All patients rated their pain and anxiety daily, score 0.10. Length of stay was also measured. Result was showed a significant and positive impact on pre and postoperative anxiety, length of stay and pain in patients.<sup>13</sup>

Carolyn Aldwin & Loriena A. Yancure conducted study on 'Effects of stress on health and aging' although older adults are thought to experience more stress and to be more vulnerable to its adverse effects, they often report less stress than younger adults and sometimes show more resilience. Paradoxically, while stress sometimes has long-term positive effects on well-being, studies differ as to whether this increases or decreases with age. So that older individuals have learned to appraise and cope differently with stress. This protects them in spite of their increased physiological vulnerability and may also increase the possibility of stress-related growth and optimal aging.<sup>14</sup>

## RESEARCH METHODOLOGY

*Research Approach:* Evaluative approach

*Research Design:* A quasi experimental nonequivalent control group design

*Setting of the study:* Old age homes in Aurangabad city.

*Sample Size:* 60 (Experimental-30, Control-30).

*Sampling Technique:* Non probable convenient sampling technique was used for selection of sample.

### *Inclusive criteria*

- Willing to participate.
- Age group 60 years & above.
- Able to relax for 20 to 25 min.

### *Exclusive Criteria*

- Seriously ill during the period of data collection
- Previously exposed to Guided Imagery.

### *Tool and Technique*

Structured questionnaire was developed and modified stress assessment scale was developed for the study.

### The too was divided in following sections

**Section I:** Dealt with the demographic data of the elderly.

**Section II:** Dealt with the modified stress assessment scale.

Modified stress assessment scale consist of total 38 questions which to be mark as an always, most of the time, some time and never. Some question carries positive scores and some carries negative scores.

#### Stress Score

No stress	00 - 38
Mild stress	39 - 76
Moderate stress	77 - 114
Severe stress	115 - 152

The score system carried marks i.e. always- 1, most of the time- 2 sometime-3, never - 4 for positive respond & always- 4, most of the time- 3, sometime- 2, never - 1 for negative respond.

The negative question is 1 to 12, 20, 22, 23, 24, 25, 27, 30, 34, 37 and negative question is 13 to 19, 21, 26, 28, 29, 31, 3, 33, 35, 36, and 38.

**Reliability:** It was established by Karl Pearson's Correlation coefficient. The reliability of tool was calculated and it was 0.76.

**Validity:** The content validity of structured questionnaire was found by submitting the tool to the experts in the field of Psychiatry by 13 expert i.e. Psychiatrist - 3, Nursing Faculty M. Sc. Nursing in Mental Health (Psychiatric) - 6, Psychologist - 2 , Bio-statistician-2.

**Pilot study:** It was conducted on 10 elderly in the Aastha Foundation of Aurangabad city.

### METHOD OF DATA COLLECTION

The data was collected from 01/01/2022 to 14/01/2022 in Matoshri Vridha Shram, Aurangabad. Prior the data collection permission was obtained from the authorities from old age homes. The purpose of the study and method of data collection was explained to the subjects for getting true responses. The assurance given regarding the confidentiality of the information. An informed consent was obtained from the respondents indicating their willingness to participate in the study. The subjects who fulfill the sampling criteria were taken for the study from the selected old age home. Total 60 sample selected for study out of experimental was 30 & control group 30 with help of non probable convenient sampling technique.

The data was collected from elderly present at old age homes with help of modified stress assessment scale through structured interview schedule.

Investigator administered the modified stress assessment scale to the elderly to obtain the pre test. After that investigator given guided imagery intervention from 01/01/2022 to 14/01/2022 with the help of audio CD daily for next fifteenth day. Post test was administered with same scale. After the data gathering process the investigator thanked all the study subjects as well as the authority persons for their co-operation. Guided imagery intervention was given to control group also after post test.

### RESULTS OF THE STUDY

**Section A:** Demographic data analyzed using frequency and percentage.

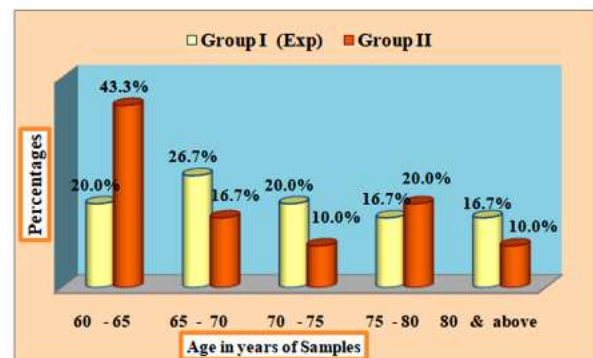


Fig. 1: Distribution of the subjects according to their Age

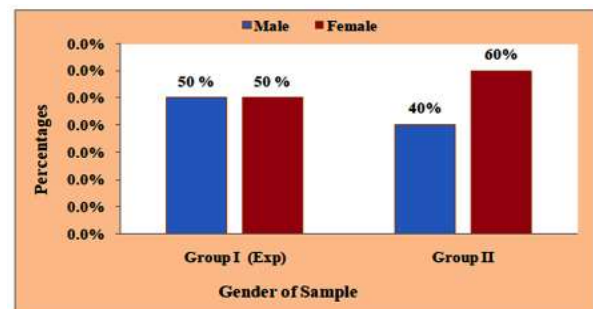


Fig. 2: Distribution of the subjects according to Gender

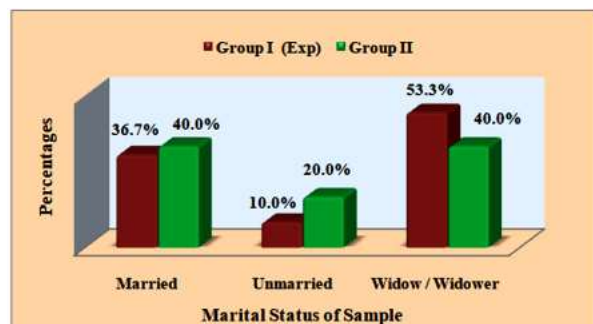


Fig. 3: Distribution of the subjects according to Marital Status

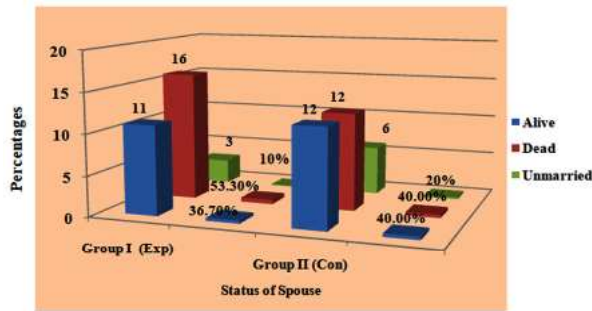


Fig. 4: Distribution of the subjects according to Status of Spouse

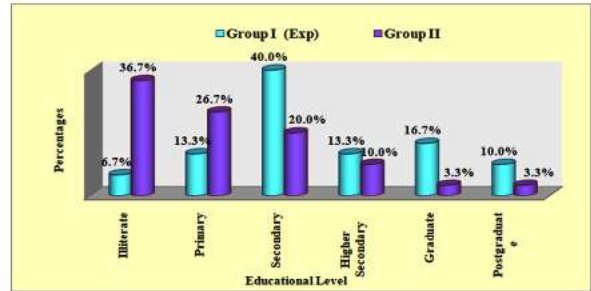


Fig. 5: Distribution of the subjects according to the Educational Status

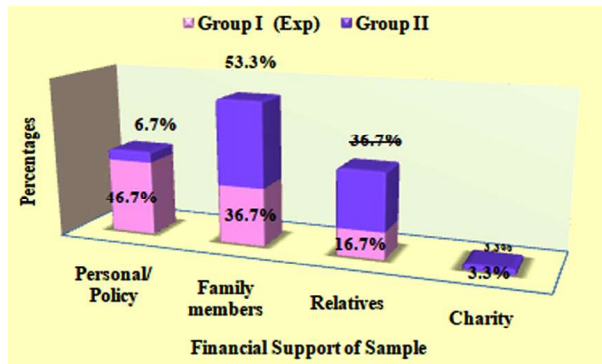


Fig. 6: Distribution of the subjects according to the financial support

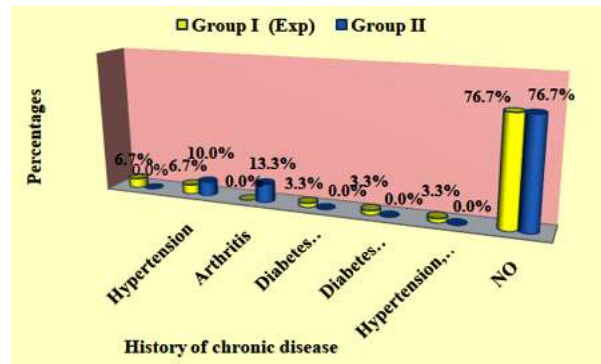


Fig. 7: Distribution of the subjects according to the history of chronic diseases.

**Section-B:** Analysis of Data Related to the level of Stress among the Elderly.

Table 1: Level of stress among the geriatrics in experimental and control group

(N= 30 experimental group, 30 control group)

Sr. No.	Stress Level	Group I (Exp)		Group II (Con)	
		F	%	F	%
1	No stress (Score 0-38)	0	-	-	-
2	Mild stress (Score 39-76)	5	16.7%	12	40.0%
3	Moderate stress (Score 77-114)	17	56.7%	17	56.7%
4	Severe stress (Score 115-152)	8	26.7%	1	3.3%
	Total	30	100%	30	100%

**Section-III:** Analysis of Data Related to the Effectiveness of Guided Imagery on Stress Among Elderly

Table 2: Effectiveness of Guided Imagery on stress among elderly

(N= 30 experimental group, 30 control group)

Sr. No.	Stress Level	Pre Test		Post Test	
		F	%	F	%
1	No stress (Score 0-38)	-	-	-	-
2	Mild stress (Score 39-76)	5	16.7%	24	80.0%
3	Moderate stress (Score 77-114)	17	56.7%	6	20.0%
4	Severe stress (Score 115-152)	8	26.7%	-	-
	Total	30	100%	30	100%

**Table 3:** Paired t-test for effectiveness of guided imagery among elderly:

Paired t-test was used for comparison of pretest and posttest stress scores among elderly.

(N= 30 experimental group, 30 control group)

-	Mean	SD	t	df	p-value
Pretest	97.2	18.8	12.9	29	0.000
Posttest	66.6	12.0			

T value was found to be 12.9 at 29 degrees of freedom. P-value at 29 degrees of freedom was 0.000. Since the p-value is small (less than 0.05), the null hypothesis is rejected. Stress score in pretest was 97.2 which reduces to 66.6 in posttest. This indicates that the stress of elderly improves significantly after guided imagery.

**Table 4:** Two sample t-test for comparison of stress of experimental and control group:

Two sample t-test was used to compare the stress among elderly in experimental and control groups.

	Mean	SD	t	df	p-value
Group I (Exp)	30.6	13.0	6.3	58	0.000
Group II(Control)	5.1	7.9			

#### Section -IV: An Analysis of Data to Find Relationship between the Level of stress among the elderly with their Selected Demographic Variable

**Table 5:** Relationship between the level of stress among the elderly with their selected demographic variables

(N= 30 experimental group, 30 control group)

Demographic variable	F	p-value
Gender	0.0	0.840
Age	1.6	0.177
Marital Status	1.4	0.248
Status of Spouse	1.4	0.248
Education	1.6	0.185
Financial support	1.2	0.303
H/O Chronic disease	0.6	0.713

**Table 6:** One-way ANOVA: score versus Gender

Source	DF	SS	MS	F	P
Gender	1	16	16		
Error	58	23204	400	0.04	0.84
Total	59	23220			

**Table 7:** One-way ANOVA: score versus Age

Source	DF	SS	MS	F	P
Age	4	2474	618		
Error	55	20746	377	1.64	0.177
Total	59	23220			

**Table 8:** One-way ANOVA: score versus Marital Status

Source	DF	SS	MS	F	P
Marital Status	2	1110	555		
Error	57	22110	388	1.43	0.248
Total	59	23220			

**Table 9:** One-way ANOVA: score versus Status of Spouse

Source	DF	SS	MS	F	P
Status of Spouse	2	1110	555		
Error	57	22110	388	1.43	0.248
Total	59	23220			

**Table 10:** One-way ANOVA: score versus Education

Source	DF	SS	MS	F	P
Education	5	2942	588		
Error	54	20278	376	1.57	0.185
Total	59	23220			

**Table 11:** One-way ANOVA: score versus Financial support

Source	DF	SS	MS	F	P
Financial support	3	1449	483		
Error	56	21771	389	1.24	0.303
Total	59	23220			

**Table 12:** One-way ANOVA: score versus H/O Chronic disease

Source	DF	SS	MS	F	P
H/O Chronic disease	6	1524	254		
Error	53	21696	409	0.62	0.713
Total	59	23220			

## CONCLUSION

The analysis of finding shows that the experimental group the average change in stress score is significantly higher than that in control group. This indicates that the stress of elderly improves significantly after guided imagery.

## NURSING IMPLICATION

The findings of the study have implications for mental health nursing, Community health nursing practice, nursing education, nursing administration, Nursing research and industrial management.

## MENTAL HEALTH NURSING

Mental health nursing based on the study findings we can say that industrial workers having moderate

to severe stress. So if they practice deep breathing exercise daily to manage their stress it will be effective for them to manage their stress and stress related problems.

## COMMUNITY HEALTH NURSING

The geriatric population is more in community and due to stress they suffer many physical, psychological and social problems. Due to their problems family member also feel stressful environment in their home. So community health nurse can prevent these problems by using the findings of the present study she can educate and ask the community people to practice guided imagery technique to manage their stress in day to day life.

## NURSING EDUCATION

In day to day life people are exposing to various stressful situations and this stress can lead to various health problems like physical, mental and social. Some peoples are prone to develop chronic illness. This health problem can be prevented by simple non pharmacological method i.e. guided imagery.

The special detail unit can be added in nursing curriculum. The guided imagery can be practiced by student and also taught to patient. The nursing student also used guided imagery to reduce their stress. The nursing teachers can use the result of study as an informative illustration for the students.

## NURSING ADMINISTRATION

The nursing administrator can use the study findings in their day today practice guided imagery for stress management and help other staff in the hospital to manage their stress. Study finding can be taught in the staff development program so that staff can manage their stress.

## NURSING RESEARCH

The research study used quantitative approach but by using qualitative approach and descriptive study design to get answer to the exact stressor and problem due to them. And those findings can be generalized.

## LIMITATIONS

- The study was carried out on a small

population so the findings cannot be generalized for large population.

- The study was limited to the experience level of the researcher.
- The study was limited elderly those are above 60 years.
- The study was limited elderly only those elderly people living in old age home.
- The study is limited for short period.

## RECOMMENDATIONS

*On the basis of the findings of the study following recommendations have been made for further study.*

- Similar study can be conducted on large subject to generalize the result.
- A study can be conducted to assess stress level in various age groups.
- The other alternative technique can be used along with guided imagery.
- The same study can be conducted for a longer period to get more reliable result.
- The comparative study to determine effectiveness of guided imagery in patient with various illnesses.
- The study can be done in various settings eg. College, School, Work places etc.

## CONCLUSION

The guided imagery was effective in reducing the level of stress among the elderly.

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