



## EFFECTIVENESS OF PROGRESSIVE MUSCLE RELAXATION TECHNIQUE ON LEVELS OF ANXIETY AMONG ELDERLY PERSONS IN OLD AGE HOME, VELLORE

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### ABSTRACT

The aim of the study was to find out the Effectiveness of progressive muscle relaxation therapy on levels of anxiety among elderly persons in old age home, Vellore.

The research design selected for this study was pre experimental one group pretest-posttest design. Purposive sample technique was adopted to select 30 elderly persons in poigai old age home, Vellore. Tool used was state trait anxiety inventory scale to assess the levels of anxiety. The findings of the study showed that there was a significant reduction in the level of anxiety among elderly after instituting progressive muscle relaxation technique. The mean score of the level of anxiety during pre-test was 102.0 and that of post-test was 70.5. The mean reduction in the level of anxiety was significant. The calculated t value was 49.5, d.f=9.8 and P<0.05. There was significant association between the level of anxiety and demographic variables such as age, education, marital status and duration of stay in old age home.

**KEYWORDS :** Effectiveness, progressive muscle relaxation technique, and anxiety.

### INTRODUCTION

According to **National Health Statistics**, Canada,(2017), although anxiety disorders, like most psychiatric conditions, may be less common among older adults than among younger people, epidemiological evidence suggests that anxiety is a major problem in late life.

According to United Nations population fund (UNFPA), 1 out of every 10 persons is now 60 years or older. The elderly population will increase to 12% of the total population by 2025, 10% of whom would be bedridden, requiring utmost care. Latest census (2011) of India revealed that more than 76 million people aged 60 years and over. This age group currently constitutes 7.4% of the Indian population. 4Facts of elderly shows that India has 2nd largest elderly (+60) population in the world.

The world's population is aging rapidly. Between 2000 and 2050, the proportion of the world's older adults is estimated to double from about 11% to 22%. In absolute terms, this is an expected increase from 605 million to 2 billion people over the age of 60. Older people face special physical and mental health challenges which need to be recognized. Over 30% of adults aged 60 and over suffer from a mental or neurological disorder (excluding headache disorders) and 6.6% of all disability (disability adjusted life years-DALYs) among over 60s is attributed to neurological and mental disorders. The most common neuropsychiatric disorders in this age group are dementia and depression and **Anxiety disorders** it affect 4.8% of the elderly population, substance use problems affect almost 1% and around a quarter of deaths from self-harm are among those aged 60 or above. Substance abuse problems among the elderly are often overlooked or misdiagnosed. Mental health problems are under-identified by health-care professionals and older people themselves, and the stigma surrounding mental illness makes people reluctant to seek help. So progressive muscle relaxation technique is a safe, non-pharmacological, non-invasive, painless, cost effective method, independent intervention and easy to practice among elderly people to relieve anxiety and maintain their balanced emotional state. Mental health nurses have more responsibility to take care of the elderly people having anxiety disorder and also to teach, how to cope up with the anxiety and to perform their activities of living.

### STATEMENT OF THE PROBLEM:

Effectiveness of progressive muscle relaxation technique on levels of anxiety among elderly persons in old age home, Vellore.

### OBJECTIVES OF THE STUDY:

To assess the pre test levels of anxiety among elderly persons. To determine the effects of progressive muscle relaxation technique on levels of anxiety among elderly persons. To find out the association between post test levels of anxiety among elderly persons.

### HYPOTHESES:

H<sub>1</sub>- There is a significant difference between pre test and post test levels of anxiety among elderly persons.

H<sub>2</sub>- There is a significant association between post test levels of anxiety and selected demographic variables.

### METHODOLOGY

The research approach used for the study is "Quantitative approach" Pre experimental with one group pre test and post test design.

O <sub>1</sub>	X	O <sub>2</sub>
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O<sub>1</sub>- Assess the pre test levels of anxiety.

X- Progressive muscle relaxation technique.

O<sub>2</sub>- Assess the post test levels of anxiety.

### DESCRIPTION OF VARIABLES:

**DEPENDENT VARIABLE:** levels of anxiety.

**INDEPENDENT VARIABLE:** Progressive muscle relaxation technique.

### DEMOGRAPHIC VARIABLES:

Age, gender, religion, educational status, marital status, pension, residency, duration of stay in old age home.

The study was conducted in old age home, Vellore. The setting is chosen on the basis of feasibility and availability of adequate sample. The population selected for the study consisted of elderly adults in old age home, Vellore. The purposive sampling technique was used. In this study sample consists of 30 elderly persons.

### CRITERIA FOR SAMPLE SELECTION:

#### INCLUSION CRITERIA :

- Elderly who are
- aged above 60 years.
  - willing to participate in this study.
  - able to understand and communicate in Tamil

#### EXCLUSION CRITERIA:

- Elderly who are
- not available at the time of data collection
  - not willing to participate.

### DESCRIPTION OF THE TOOL:

Section A: Demographic variables of elderly persons were in relation to Age, Sex, Education, Religion, Marital status, Pension, Previous Residency, Duration of old age home.

Section B: State Trait Anxiety Inventory Scale is used to measure the anxiety level (consists of 40 items)

The State Trait Anxiety Inventory Scale is the definitive instrument for measuring anxiety in adults. It was developed by Charles. D. Steinberger. It is said to be the most widely used self-report measure of anxiety. It is standardized tool comprising of a combination of 20 state and 20 trait anxiety statements. Each statement as four is numbering which were indicated as 1-not at all 2-somewhat 3-moderately 4-very much. No limit is set but the persons are instructed to do as quickly as possible.

**Score interpretations:**

The State Trait Anxiety Inventory Scale included 40 items of which 20 direct items and 20 reverse scoring items. The subjects were classified as follows on the basis of the scores. Normal : 0-40

Mild anxiety level: 41-80

Moderate anxiety level: 81-120

Severe anxiety level: 121-160.

**DATA COLLECTION PROCEDURE:**

Ethical clearance was obtained from institutional research committee members and written permission from head of institution to conduct the research at velapadi old age home, Vellore. 30 elderly adults were selected using inclusion criteria and were informed regarding the research study and written consent was obtained. Written permission was obtained from ethical committee members and head of institution to conduct the research at Old Age Home, velapadi. The study was conducted from (4.9.18 to 18.9.18). The elderly persons were informed regarding the research study and written consent was obtained initially. The investigator assessed the level of anxiety by using State Trait Anxiety Inventory Scale. It took a minimum of 40 minutes for the assessment with each participant. After that, progressive muscle relaxation technique was demonstrated to them followed by return demonstration done. They were advised to practice regularly for 15 minutes every day for two week and it was supervised and observed by researcher. On the 18 day post-test was conducted using State Trait Anxiety Inventory Scale.

**PLAN FOR DATA ANALYSIS:**

Distribution of demographic variables is analyzed by descriptive statistics (mean, standard deviation). To find out the effectiveness of progressive muscle relaxation technique, inferential statistics (paired 't' test) is used. To find out the association between post test levels of anxiety and selected demographic variables, inferential statistics (chi square) is used.

**RESULTS AND DISCUSSION:**

**Table 1:- Frequency and percentage distribution of levels of anxiety among elderly persons.**

n=30

SI.NO	Levels of Anxiety	Pretest		Post test	
		NO	%	NO	%
1.	Normal	-	-	3	10.0
2.	Mild	3	10.0	22	73.3
3.	Moderate	23	76.7	5	16.7
4.	Severe	4	13.3	-	-

Table- 1 shows distribution of the level of anxiety among elderly persons administering progressive muscle relaxation technique before intervention 3 (10%) had mild level of anxiety, 23 (76.7%) had moderate level of anxiety, 4 (13.3 %) had severe level of anxiety. After administering progressive muscle relaxation 3 (10%) were normal, 22(73%) had mild level of anxiety, 5(16.7%) had moderate level of anxiety.

**Table.2: Effectiveness of Progressive muscle relaxation technique pre and posttest mean scores on level of anxiety among elderly persons.**

n=30

SI.NO	Levels of anxiety	Mean	Standard Deviation	Mean Difference	Paired t test
1.	Pre test	102.0	12.36	49.5	9.8*
2.	Post test	70.5	16.34		

Note \*\*\*statistically significant (p<0.05)

Table-2: Shows that pretest mean value is reduced to that of posttest mean value after the practice of Progressive muscle relaxation technique. The calculated value is 0.05 greater than that of the table value. This shows that Progressive muscle relaxation technique is effective in reducing level of anxiety among elderly persons.

There is a significant association between post test level of anxiety and demographic variables like age, educational status, marital status, duration of stay in old age home of elderly persons at (p<0.05)level. Hence it is interpreted that the difference in mean score was true difference and not by chance and hence hypothesis H<sub>2</sub> was accepted.

There was no significant association between post test level of anxiety and demographic variables like sex, religion, pension, and residency.

**CONCLUSION**

Effectiveness of progressive muscle relaxation therapy on levels of anxiety among elderly persons in old age homes, Vellore. Before the therapy the levels of anxiety was increased and after the therapy it was found that there was reduction in the levels of anxiety which shows that progressive muscle relaxation technique was effective.

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