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

Prabhu TS and Dr. P Muthumari

Abstract

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

The research design selected for this study was pre experimental one group pretest-posttest design. The sampling size is 40 elderly persons (20-experimental group, 20- control group) selected based on the inclusion and exclusion criteria in Gudiyattam 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 101.6 and that of post-test was 86.7 in experimental group. The mean score of the level of anxiety during pre-test was 107.6 and that of post-test was 107.3 in control group. The mean reduction in the level of anxiety was significant. The calculated t value was 7.5 which is highly significant at the level of ($P < 0.001$). There is significant association between the post test levels of anxiety on progressive muscle relaxation technique among the elderly persons in experimental & control group with selected demographic variables like sex, marital status.

Keywords: Effectiveness, progressive muscle relaxation technique, and anxiety.

Introduction

Old age is the closing period in the life span. It is a period when people “move away” from previous, more desirable period of times of “usefulness”. Like every other period in life span old age is characterized by certain physical and psychological changes. The effect of these changes to determine, to a large extent whether elderly men and women will make good or poor personal and social adjustments.

Most anxiety disorders begin in early to middle adulthood, but some appear for the first time after age 60. The fragility of the autonomic nervous system in older persons may account for the development of anxiety after a major stressor. Aging is not a risk factor for anxiety but rather a protective one. However, several biological, psychological, and social risk factors for anxiety disorders have been identified for older adults. Among elderly anxiety is a major health problem. Anxiety disorder such as panic disorder, phobia, obsessive and compulsive disorder and somatoform disorders occur more than 4% of the elderly population. Studies have shown anxiety disorder is more common in the elderly, affecting 7% of the seniors.

“Studies have shown that anxiety is more common in the elderly, affecting 7% of seniors, than depression”- says researcher Erison, According to The Office for National Statistics Psychiatric Morbidity report (2010), mixed anxiety and depression was the most common mental disorder in Britain, with almost 10 percent of people meeting criteria for diagnosis.

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. 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 at Gudiyattam old age home, Vellore.

Objectives of the study

1. To assess the pre test levels of anxiety on among elderly persons in experimental and control group.
2. To determine the effectiveness of progressive muscle relaxation technique on levels of anxiety in experimental groups.
3. To association the post test levels of anxiety progressive muscle relaxation technique among elderly persons with selected demographic variables among experimental and control group.

Hypotheses

H1: There is significant difference between the post test levels of anxiety on progressive muscle relaxation technique among the elderly persons in experimental & control group.
 H2: There is significant association between the post test levels of anxiety on progressive muscle relaxation technique among the elderly persons in experimental & control group with selected demographic variables.

Methodology

The research approach used for the study is “Quantitative approach” Quasi experimental post test only design.

E	X	O1
C	-	O2

Key

1. E- Experimental group to determine the levels of anxiety on progressive muscle relaxation technique among elderly persons old age home at Vellore.
2. X- Intervention by using state trait anxiety inventory scale.
3. O1- Post test to determine the levels of anxiety on progressive muscle relaxation technique among elderly persons old age home in Experimental & Control group.
4. C- Control group to determine the levels of anxiety on progressive muscle relaxation technique among elderly persons old age home.

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 Gudiyattam old age home, Vellore. The setting is chosen on the basis of feasibility and availability of adequate sample. The purposive sampling technique was used. In this study sample consists of 40 elderly persons (20-experimental group, 20- control group).

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-verymuch. No limit is set but the persons are instructing 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 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 Gudiyattam old age home, Vellore. 40 elderly persons were selected by using inclusion criteria and were informed regarding the research study and written consent was obtained. The study was conducted from (16.4.18 to 1.5.18). 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 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: Percentage distribution on levels of anxiety on progressive muscle relaxation technique among elderly persons in control group and experimental group n=40

S. No	Levels of Anxiety	Experimental Group				Control Group			
		Pretest		Post test		Pretest		Posttest	
		No	%	No	%	No	%	No	%
1.	Normal	-	-	6	30	-	-	-	-
2.	Mild	-	-	14	70	-	-	-	-
3.	Moderate	20	100	-	-	20	100	20	100
4.	Severe	-	-	-	-	-	-	-	-

Table- 1 shows distribution of the level of anxiety among elderly persons administering progressive muscle relaxation technique before intervention of the experimental group 20(100%) had moderate level of anxiety. After administering progressive muscle relaxation to the elderly

persons of the experimental group 6 (30%) were normal levels of anxiety, 14(70%) had mild level of anxiety. And for control group 20 (100%) had moderate levels of anxiety during pre and post test.

Table 2: Effectiveness of Progressive muscle relaxation technique pre and posttest mean scores on level of anxiety among elderly persons. n=40

S. No	Levels of anxiety	Mean		Standard Deviation		Mean Difference	Paired t test
		pretest	posttest	pretest	posttest		
1.	Experimental group	101.6	86.7	6.7	5.6	14.9	7.5***
2.	Control group	107.6	107.3	5.2	5.0	0.3	0.3

Note ***statistically significant ($p < 0.001$)

Table-2: The mean score levels of anxiety before the intervention in the experimental group was 101.6. After the intervention the mean score was 86.7 in experimental group and 107.3 in control group. The calculated paired t value (7.5) is greater than the table value (3.29) ($p < 0.001$) which is highly significant. This shows that Progressive muscle relaxation technique is effective in reduction of levels of anxiety among elderly persons. Hence hypothesis H_1 was accepted.

There is significant association between the post test levels of anxiety and demographic variables like sex, marital status of elderly persons at ($p < 0.05$) level. Hence hypothesis H_2 was accepted.

Conclusion

Effectiveness of progressive muscle relaxation therapy on levels of anxiety among elderly persons in Gudiyattam 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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