

A Pre-Experimental Study to Assess the Effectiveness of Demonstrated Audio assisted Jacobson Progressive Muscle Relaxation Techniques in Reducing Anxiety among Older Adults at the Selected Old Age Home in Delhi NCR

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Abstract: *Anxiety is a common illness among older adults, affecting as many as 10-20 percent of the older population, though it is often undiagnosed. Feeling anxious or nervous is a common emotion for people of all ages and a normal reaction to stress. Feeling anxious can help us handle problems and strange situations, and even avoid danger. It is normal to feel anxious about illnesses, new social interactions, and frightening events. But when one feels anxious often and the anxiety is overwhelming and affects daily tasks, social life, and relationships, it may be an illness. Jacobson Progressive muscle Relaxation Techniques are systematic therapy for managing anxiety and achieving a deep state of relaxation. The research design adopted for the present study is pre experimental one group pre & post-test design. After obtaining Permission the final study was conducted from 1st to 21st December 2018. Convenient sampling technique was used for selecting 30 samples. Geriatric anxiety inventory was used to assess the level of anxiety before & after administering JPMR. The JPMR is given for 20 days in the morning session. The duration of giving JPMR is 20minutes. In the pretest, majority 16 (53.3%) older adults were in moderate anxiety, 7 (23.4%) were in severe anxiety, 4 (13.3%) were in mild anxiety and 03(10%) were in no level of anxiety. In the posttest after receiving progressive muscle relaxation technique, 14 (46.7%) of older adults were in moderate anxiety, 3 (10%) were in mild anxiety, 6(20%) were in severe anxiety and 7(23.3%) were in no level of anxiety.*

Keywords: Jacobson Progressive Muscle Relaxation Techniques, Geriatric Anxiety Inventory, Older adults

1. Introduction

Anxiety is a common illness among older adults, affecting as many as 10-20 percent of the older population, though it is often undiagnosed. It is estimated that about 25% of the old age population will experience an anxiety disorder at some stage of their life. Women are twice more likely to suffer from an anxiety disorders than men. Unfortunately, only very few of people receive treatment for their disorder. Anxiety problem often leads to mental disorders. People with anxiety disorders are also at higher risk of being affected by depression. So it needs to be addressed before an anxiety disorder can be effectively treated.¹ The current prevalence for all types of anxiety disorder was found to be 17.1% overall and the lifetime prevalence was found to be 18.6%. The current prevalence rates for particular disorders were found to be 6.9% for generalized anxiety disorder (GAD). Anxiety disorders are more common among elderly people than was previously thought. The lifetime prevalence of specific phobia amongst the elderly is higher than that of general population.²

Ageing is a universal phenomenon, which is experienced by every human being across various cultures. The experience of ageing is unique to every individual because of the individual differences in personalities, varying social support networks and differing according to the culture to which one belongs. Also aging involves many major life changes and is a psychological step, or a transition, that alters one's relation

to the world and demands new responses.

The Indian family has traditionally provided natural social security to the old people. However, in more recent times, the traditional role of the family is being shared by institutions such as old age homes. Many of the elderly parents are compelled to leave their children and stay in old age homes.

The old age homes, which were a rarity, have recently spread across the country, a fact that indicates the growing rift between the generations.

Elderly anxiety can be quite common as ageing presents its own set of challenges - many elderly people have to face some very difficult situations where certain health conditions could be taking a toll on the person on the one hand and, on the other, failing health or death of a spouse could contribute heavily to stress in the elderly.

Sometimes, people who have led a fairly independent life might be required to depend on another because of disabilities and coming to terms with these changes and challenges can be heart wrenching for the elderly. In such cases, it is only natural one begins to feel terribly lonely and in the absence of a support system in terms of spouse, family, and friends, elderly stress sets in during old age.

Jacobson progressive muscle relaxation techniques are the relaxing methods that can function beyond treatment of

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anxiety to improve a person's overall wellbeing. People practicing Jacobson progressive muscle relaxation techniques learn to relax the muscles and tensions by regulating their breath, which also serves as a foundation for meditation. Learning to manage the breath through Jacobson progressive muscle relaxation techniques leads to relaxation and better quality of life, which can reduce or eventually eliminate the persistent symptoms of anxiety.

2. Literature Survey

Gerard J Byrne, Nancy A Pachana, Daniela C Goncalves. (2010) conducted a cross-sectional study of a population-based cohort of 286 Australian community-residing women aged 60+ assessed the psychometric properties and health correlates of the Geriatric Anxiety 69 Inventory (GAI). The GAI exhibited sound internal consistency and demonstrated good concurrent validity against the state half of the Spielberger State Trait Anxiety Inventory (STAI-S) and the neuroticism domain of the NEO five-factor inventory.

GAI score was significantly associated with self-reported sleep difficulties and perceived memory impairment, but not with age or cognitive function. Women with current DSM-IV Generalized Anxiety Disorder (GAD) had significantly higher GAI scores than women without such a history. In this cohort, the optimal cut-point to detect current GAD was 8/9. Although the GAI was designed to have few somatic items, women with a greater number of general medical problems or who rated their general health as worse had higher GAI scores. The GAI is a new scale designed specifically to measure anxiety in older people. ⁽¹⁾

Chan, et al. (2013) conducted study on the effect of Progressive muscle relaxation technique on anxiety state and blood pressure in patient with essential hypertension 40 subjects from a hypertension outpatient clinic received progressive muscle relaxation technique training once in a week and practiced at home daily for four weeks. Progressive muscle relaxation technique significantly enhanced their perception of health and in beneficial for patients with level of anxiety. ⁽²⁾

Kim. (2008) conducted a study on the effects of relaxation and mnemonics on anxiety in the elderly. They measured anxiety intensity on 25 normal elderly subjects, who were trained in techniques to improve face name recall. Techniques consist of relaxation training and a mnemonic device. Anxiety was measured simultaneously with attention measures. They hypothesized that their techniques would increase available on reducing anxious rumination. The result suggests that the elderly anxiety has a cognitive component that interferes with performance on attention and memory tasks, but which can be reduced through relaxation training. ⁽³⁾

3. Statement of Problem

“A pre experimental study to assess the effectiveness of demonstrated audio assisted Jacobson progressive muscle relaxation techniques in reducing anxiety among older adults at the selected old age home in Delhi/ NCR”.

Methods / Approach

The objectives of the study were to assess the level of anxiety among elderly people, to assess the effectiveness of Jacobson progressive muscle relaxation techniques in reducing anxiety among elderly people, to find out the association between post-test levels of stress with their selected demographic variables. Hypothesis- H₁- There will be significant difference between the mean pre- test stress score and post-test anxiety score among elderly people after administering of Jacobson progressive muscle relaxation techniques at 0.05 level of significance. H₂- There will be a significant association between the post-test stress Score with their selected demographic variables at 0.05 level of significance.

Quantitative research approach and Pre-experimental one group pre-test- post-test research design were adopted. The study was conducted at Bhagwat Dham Old age home, Mayur Vihar Phase 1, Delhi. 30 samples were selected using convenient sampling technique. The tool for data collection had two parts. Part 1 consisted of demographic variables, Age, Gender, Education, Marital status, Religion, Occupation before joining, How long are you living in old age, Source of income, Reasons for stay in the old age home,. Part 2 consisted of a standardized tool developed by N.A. et al (2007) for measuring anxiety among older adults. The permission for using tool was taken from the author. It consists of 20 items and was administered by researcher. The Cronbach's alpha value is 0.91. The time taken to administer the tool was 5 -10 minutes.

4. Results and Discussion

The collected data was organized, tabulated and analyzed by using descriptive and inferential statistics including paired “t” test and Fisher Exact test. The results are discussed in following four sections.

Section-1: Findings related to frequency and percentage distribution of demographic variables of older adults.

Majority of older adults 5(16.7%) belong to age 60-64 years and 4(13.3%) belong to age 65-69 years, while 9(30%) belong to age 70- 74 years and 5(16.6%) belong to age 75-79 years and 7(23.3%) belong to 80 and above. Majority of older adults 14(46.7%) were belong to male, 16(53.3%) belong to female. Majority of older adults 16(53.4%) were married, 03(10%) percent were unmarried, 5(16.6%) were divorced, 02(6.6%) were separated and 04(13.3%) were widower. Majority of older adults belong to nuclear family 18(60%) and 12(50%) belong to joint family. Majority of older adults belong to Hindu 18(60%), 2(6.7 %) from Muslim, 3(10%) from Christian and 7(23.3%) from others. Majority of the older adults belong to 18(60%) Graduate or above, while 7(23.3%) belong to Higher secondary education, 3(10%) belong to middle education, 2(6.7%) belong to primary education and 0(0%) belong to informal education. Majority of older adults from occupation category belong to business 9 (30%), 9(30%) belong to Ex-servicemen/ retired, 7(23.4%) belong to private/ Govt. Job and 5(16.6%) belong to none. Majority of older adults from the source of income category belong to pension 13(43.3%), 8(26.7%) belong to salary if working, 3(10%) belong to

support from family and NGO and 6(20%) belong to none. Majority of older adults from reason of staying in old age home category belong to no family members/relatives 18(43.3%), 8(26.7%) belong to neglected from children and family, 2(6.6%) belong to poverty and 2(6.6%) belong to prolonged illness/ severe disease condition.

Majority of older adults from length of stay at old age home category belong to less than 2 years 6(20%),10(33.4%) belong to 2-5 years and 14(46.7%) belong to up to 5 years.

Section-2: Findings related to Pre-test and post-test level of anxiety among older adults.

This section describes the Geriatric anxiety inventory scores of older adults residing in old age home before and after the administration of Jacobson progressive muscle relaxation techniques. To determine the Geriatric anxiety inventory score descriptive and inferential statistics were used.

Table 1: The effectiveness of Geriatric anxiety inventory to reduce anxiety among older adults in terms of frequency and percentage. (Pre-test & Post-test), N=30

Level of anxiety	Scoring	Pre-test		Post-test	
		(f)	(%)	(f)	(%)
No level of anxiety	0-5	03	10	07	23.3
Mild level of anxiety	6-10	04	13.3	03	10
Moderate level of anxiety	11-15	16	53.3	14	46.7
Severe level of anxiety	16-20	07	23.4	06	20
Total	20	30	100	30	100

Pre-test: Majority 16 (53.3%) older adults were in moderate anxiety, 7 (23.4%) were in severe anxiety, 4 (13.3%) were in mild anxiety and 03(10%) were in no level of anxiety.

Post- test: after receiving progressive muscle relaxation technique, 14 (46.7%) of older adults were in moderate anxiety, 3 (10%) were in mild anxiety, 6(20%) were in severe anxiety and 7(23.3%) were in no level of anxiety.

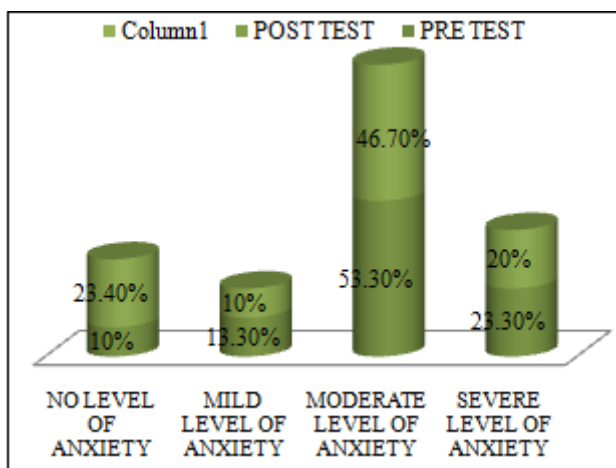


Figure 1: Cylinder diagram Showing frequency and percentage distribution of level of anxiety among elderly people in pre- test and post-test

Swati Sen (2013) conducted study on Health Impacts of Jacobson progressive relaxation techniques: A State-of-the-Art Review Thousands of years ago Jacobson progressive relaxation techniques originated in India, and in present day

and age, an alarming awareness was observed in health and natural remedies among people by Jacobson progressive relaxation techniques which has been proven an effective method for improving health in addition to prevention and management of diseases. Jacobson progressive relaxation techniques is reported to reduce anxiety, improves autonomic functions by triggering neurohormonal mechanisms by the suppression of sympathetic activity, and even, now-a-days, several reports suggested Jacobson progressive relaxation techniques is beneficial for physical health.

Section-3: Findings related to effectiveness of Jacobson progressive relaxation techniques of elderly people.

This section describes Geriatric anxiety inventory pre-test and post –test scores of elderly people before and after the administration of Jacobson progressive relaxation techniques. To determine the effectiveness of Jacobson progressive relaxation techniques on level of anxiety paired “t” was used.

Table 2: Mean, median, mean difference standard deviation and “t” value of elderly people before and after administration of Jacobson progressive relaxation techniques

Tests	Mean	Median	Mean difference	Sd	“t” value
Pre-test	14.831	15	3.8	3.35	9.253*
Post-test	1.03	10		4.008	

df (29) = 2.05 at 0.05 level of significance

The above table showed that the mean in the pretest and posttest was 14.83 and 11.03 and standard deviation in the pretest and posttest was 3.35 and 4.008 respectively. The mean difference was 3.8. The paired “t” test value was 9.253 which were greater than the table value (2.05), which was significant at 0.05 level of significance. Hence the null hypothesis was rejected and research hypothesis was accepted. Thus, it was evidenced that progressive muscle relaxation technique was more effective in terms of reducing anxiety among the older adults.

Section-4: Findings related to the association of post- test score with the selected demographic variables

It was evident from the obtained Fisher exact test values that there was a significant association between the post- test stress score with selected demographic variables like Occupation before joining the old age home, reason for stay in the old age home. There was no significant association between the post-test stress score with selected demographic variables like age, Gender, type of family, Education, Marital status, Religion, reason for staying and length of stay , Source of income.

5. Discussion

The present study finding indicates that 03(10%) had no level of anxiety, 4 (13.3%) had mild anxiety, 16(53.3%) had moderate anxiety and 7(23.4%) had severe level of anxiety before receiving progressive muscle relaxation technique. After receiving progressive muscle relaxation technique 7 (23.35%) had no level of anxiety, 3 (10%) had mild anxiety, 14(46.7%) had moderate anxiety and 6(20%) had severe

anxiety. Which is consistent with the finding of study conducted by Pankaj Sahu in 2013 in Gujarat, et al.; says that there was significant decrease in score in Group 1 and Group 2 sample after 12 weeks of intervention when compared to pre-test score⁽⁴⁾.

6. Conclusion

The present study assessed the effectiveness of Jacobson progressive muscle relaxation techniques in reducing the level of anxiety. It is statistically evidenced that Jacobson progressive muscle relaxation technique was effective in reducing the level of anxiety among older adults. It is cost effective complimentary non - invasive therapy to reduce anxiety.

7. Future Scope

- a) A similar study with longer duration can be conducted to assess the long term benefits of progressive muscle relaxation technique.
- b) A similar study can be conducted by having a control group to observe the value of other complementary therapy.
- c) A comparative study can be conducted to evaluate the effectiveness of progressive muscle relaxation technique with other various complementary therapies among other population.

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