

A Study to Assess the Effectiveness of Jacobson's Progressive Relaxation Technique on Anxiety Among Elderly People of Aged 60-70 Years in Selected Old Age Homes at New Delhi

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Abstract: An elderly who are residing in the old age homes may have the chances of experiencing anxiety as they are away from their children and experiencing old age health related problems. The purpose of the study was to reduce the anxiety among elderly by giving Jacobson's progressive muscle relaxation technique. The objectives of the study were to assess the level of anxiety & the effectiveness of Jacobson's progressive relaxation technique on anxiety among elderly people & to find out the association between post-test anxiety level with selected demographic variables among elderly people. A Quantitative research approach was used and the research design adopted for the present study was quasi-experimental pre-test and post-test design. The target population for the study was elderly people in selected old age home of New Delhi. Sample size was 60 data analysis was done by the basis of objective and hypothesis of study. The feasibility of the study and the standardized tools were assessed through a pilot study. The tool taken for the study was Hamilton Anxiety Scale. The data collection for the main study was done from January 15th to 15th February 2019. The study was conducted in old age homes at Nyi Duniya & Ashriwad old age home. Purposive sampling technique was used for selection of subjects. The target population selected for the study was 60-70 years' elderly people in the old age homes who met the inclusion criteria. The obtained data was analyzed based on objective and hypothesis by using descriptive and inferential statistics and hypothesis was tested at 0.05 level of significance. The results of the study say that level of anxiety among elderly people before administered the Jacobson's progressive muscle relaxation technique in experimental group 27 (90%) severe anxiety & 3 (10%) of very severe anxiety, in control group 29(96.7%) severe anxiety & 1(3.3%) very severe anxiety. After the administered the Jacobson's progressive muscle relaxation technique in experimental group 21 (70%) had moderate anxiety & 9 (30%) had severe anxiety, in control group 28 (93.3%) had severe anxiety & 2 (6.7%) had very severe anxiety among elderly people. There was no significant association between post – test scores of anxiety and demographic variable such as elderly age ($p= 0.117$), gender ($p=0.745$), marital status ($p= 0.813$), religion ($p= 0.888$), education ($p=0.474$), source of information ($p=0.144$), duration of staying in old age home ($p= .580$), any physical or mental illness, if yes then specify ($p= 0.533$). This study concluded that Jacobson's progressive muscles relaxation technique was effective in reduction of anxiety among elderly people of age 60-70 years.

Keywords: Assess the level of anxiety, Jacobson's progressive relaxation technique, Elderly people

1. Background of the Study

The world's population is aging rapidly. Between 2015 and 2050, the proportion of the world's older adults is estimated to almost double from about 12% to 22%. In absolute terms, this is an expected increase from 900 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 20% 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 people over 60 years is attributed to mental and neurological disorders. These disorders in older people account for 17.4% of Years Lived with Disability (YLDs). The most common mental and neurological disorders in this age group are dementia and depression, which affect approximately 5% and 7% of the world's older population, respectively. Anxiety disorders affect 3.8% of the older population, substance use problems affect almost 1% and around a quarter of deaths from self-harm are among people aged 60 or above. (WHO, Mental Health and Older Adults Fact 2016).

The term anxiety has become a part of our everyday life. The concepts of anxiety may differ according to the individual's state of contexts and interpretations. It is recognized that certain amount of anxiety is desirable, productive and can facilitate the individuals to grow but when the anxiety exceeds disturb the normal functions. And even human body undergoes a number of autonomic physiological changes such as perspiration, restlessness, discomfort, palpitation and tightness in the chest. (N. Ahuja 2002).

Aging is a natural process and an inevitable one. Elderly is a crucial phase where the physiological, psychological and socio-cultural changes in elderly contribute to developing anxiety. Anxiety is a normal emotion. All human beings develop it as a means of protection from danger and threat when we perceive danger. But Persistent or extreme anxiety can seriously decrease quality of life and can be a sign of other problems, such as depression, dementia, physical illness, or side effects to drug treatment. Anxiety can be a symptom associated with many medical disorders common in older adults, including heart disease, lung disease, thyroid and other endocrine problems, neurologic illness, dietary problems (e.g., excess caffeine intake or vitamin B12 deficiency), psychological illnesses, and side effects to medications. Studies have shown that

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generalized anxiety disorder is more common in the elderly, affecting 7% of seniors, than depression, which affects about 3% of seniors. Surprisingly, there is little research that has been done on this disorder among elderly as reported by a research study. (J. Lenze Eric 2014).

2. Statement of Problem

“A Study To Assess The Effectiveness Of Jacobson’s Progressive Relaxation Technique On Anxiety Among Elderly People Of Aged 60-70 Years In Selected Old Age Homes At New Delhi”.

Methodology:

Research Approach

The present study aimed to assess the level of anxiety among the elderly people regarding Jacobson’s progressive muscle relaxation technique in selected old age homes new Delhi, with a view to complete the research objectives, quantitative research approach was adopted for this study.

Research Design

Quasi-experimental pre-test and post-test designs were used in this study to assess the anxiety level regarding Jacobson’s progressive muscle relaxation technique.

Table 1: Tabular presentation of the research design

Group	Pre-test	Intervention	Post-test
Experimental group (elderly people)	O ₁	X	O ₂
Control group (elderly people)	O ₃	-	O ₄

O₁-Pre-anxiety assessment among the Experimental group
 O₂-Post- anxiety assessment among the Experimental group
 X- Implementation of jacobson’s progressive relaxation technique to the Experimental group
 O₃-Pre- anxiety assessment among the Control group.
 O₄- Post- anxiety assessment among the Control group

Independent variables

Jacobson’s progressive relaxation technique.

Dependent Variable.

Level of anxiety.

Extraneous variable:

A variable that confounds the relationship between the independent and the dependent variable, that needs to be controlled either in the research design or through statistical procedure.

In this study the extraneous variables were age, gender, religion, education, marital status, source of information,

duration of staying in old age home, any physical or mental abnormalities.

Setting

Setting refers to the area where the study is conducted. It may be natural setting of hospital setting depending upon the study topic and researcher’s choice. This study was conducted in old age homes Nyi Dunia & Ashriwad old age home.

Population

The entire set of individuals or objects having some common characteristics, (Polit and Beck, 2011).

In this study, the population includes elderly people of aged 60-70 years setting.

Target population:

The target population consist of elderly people those who are suffering with anxiety.

Accessible population:

The accessible population consist of elderly people those who are residing at selected old age homes in New Delhi.

Sample

A set of a population selected to participate in a study, (Polit and Beck 2011).

The sample for the present study was the elderly people were having anxiety who were residing the old age home Nyi Duniya & Ashriwad old age home in New Delhi.

Sampling Technique

Sampling technique refers to the process of selecting the population to represent the entire population, (Polit and Beck, 2011).

In this study, purposive sampling technique was used to select the sample.

Sample Size

The sample size for the present study was calculated based on the pilot study findings using the following formula.

$$n = \frac{2 [Z_{1 - \alpha/2} + Z_{1 - \beta}] Sd^2}{d^2}$$

n = required sample size

P = (proportion of sample)

d = 20% margin of error of proportion

Z_{1 - α/2} = 1.96

Z_{1 - β} = 1.28

SD= Standard deviation

Total required sample was 80. Data were collected from 60 samples due to unavailability of sample in old age home during data collection period.

Criteria for Sample Selection

Inclusion Criteria

- Elderly people who all are residing in old age homes.
- Elderly who are willing to participate in the study.
- Elderly Males and females who are aged 60-70 years.
- Elderly people who are able read and speak Hindi.

Exclusion Criteria

- Elderly persons who are not able to perform relaxation techniques.
- Elderly persons who are disoriented.
- Elderly who are taking anti-anxiety drugs.
- Elderly people who are having any physical deformities

Development of Tool

The research instrument was developed by doing study from the literature review. The primary and secondary sources of literature were reviewed to develop at the appropriate tool. Validity was obtained from the 5 experts from different department of nursing, Statistician, Ayurvedic doctor. Their opinions and valuable suggestion were incorporated in the tool and it was finalized by the guide.

Description of the Tool

Tool 1: Demographic proforma.

Tool 2: Hamilton anxiety scale.

Tool 1- Demographic Proforma.

The instrument was developed by the researcher. The tool was used to collect the background information of the participants. The tool had a total of items such as age, gender, educational status, religion, duration of staying in old age home, source of information, any physical or mental illness.

Tool 2- Hamilton anxiety scale.

In this study, Hamilton anxiety scale was used to assess the anxiety level among elderly. In this scale, 14 items are given with total score of 56. Each item has a 0-4 score level. 0= No anxiety, 1 = mild anxiety, 2=moderate anxiety, 3=sever anxiety, & 4=very severe anxiety.

Content Validity

To ensure the content validity of the tool, the tool along with the letter requesting opinion and suggestion from experts and criteria checklist were given to nine experts in

the field of pediatrics, psychiatric, CHN department, the experts were requested to give their opinion regarding agreement or disagreement in terms of relevance, accuracy, appropriateness. Language validity was established by Hindi language experts.

Language Validity

The language validity was established by translating the tool to Hindi and retranslating to English by language experts.

Reliability

The reliability of the tool was recognized by administering the tool to 6 samples who all are residing in old age home, Guru Vishram Viridh Ashram, first last of November 2018. The reliability coefficient was calculated by split half method and using spearman brown prophecy formula. The reliability coefficient obtained was ($r = 0.80$).

3. Discussion

The analysis of the study findings is categorized into the following sections:

Section 1: Description of sample characteristics.

On demographic variables the results of the study shows that in the experimental group the majority of sample was 16 (53.3%) were belong to age group of 60-62 year of age, 18 (60%) of the sample were female, majority of sample marital status was 10 (33%) widow/widower, 18 (60%) belonged to Hindu religion, most of sample were having education status to 18 (60%) primary school education, majority of the sample were getting of source of information 27 (90%) from mass media, most of sample were residing in old age homes 14 (46.7 %) <1 year, 16 (53.3% sample were not suffering from physical or mental illness. In Control group the majority of sample was 22 (73.3%) were belong to age group of 60-62 year of age, 19 (63.3%) of the sample were female, majority of sample marital status was 13 (43.3%) widow/widower, 11 (36.7%) belonged to Hindu religion, most of sample were having education status to 13 (43.3%) primary school education, majority of the sample were getting of source of information 30 (100%) from mass media, most of sample were residing in old age homes 19 (63.3 %) < 1 year, 12 (40.0%) sample were not suffering from physical or mental illness.

Section 2: Description to assess the level of anxiety among elderly people aged 60-70 years.

Level of anxiety among elderly people was assessed by using of Hamilton anxiety scale. The description of the pre-test score of experimental group presented in figure 1 and control group presented in figure 2.

Figure 1: Graphical representation of elderly by their anxiety level

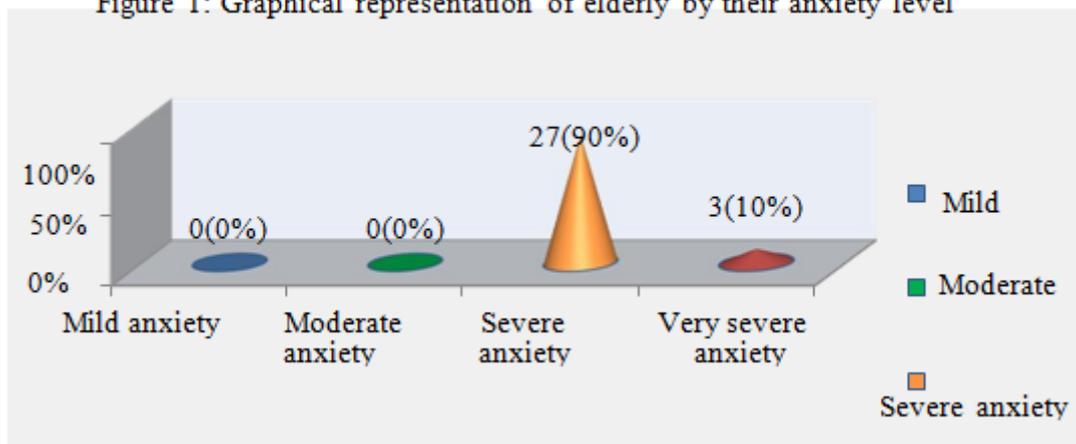


Figure 1: Cone diagram showing frequency and percentage distribution of pre test anxiety level in experimental group among elderly people

Fig 2: Graphical representation of elderly by their anxiety level

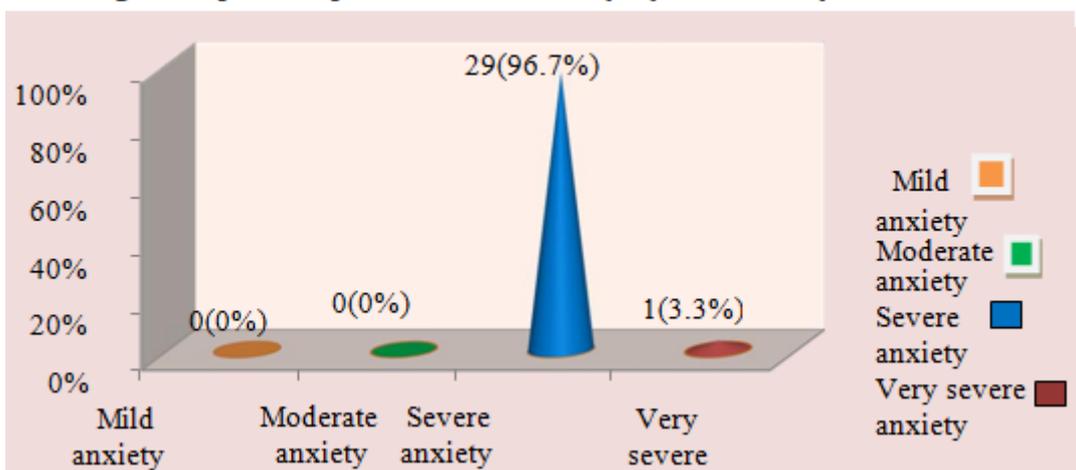


Figure 2: Cone diagram showing frequency and percentage distribution of pre test anxiety level in control group among elderly people

The result in figure 3 has revealed that in experimental group of 27 (90%) of elderly had severe anxiety, 3 (10%) of elderly people had very severe anxiety and in figure 4 has revealed that in control group 29 (96.7%) elderly have severe anxiety & 1 (3.3%) had very severe

anxiety.

Section 3: Description to assess the effectiveness of Jacobson’s progressive relaxation technique on anxiety among elderly people.

Table 1: Experimental group (n=30)

Group	Mean	Standard Deviation	Mean Difference	t value	P value
Experimental pre-test	28.07	1.911			
Experimental Post test	23.53	1.717	4.54	17.784	0.001*

*Significant at 0.05 level of significance

The above table has shown that mean anxiety score among elderly in experimental group during pre-test was 28.07 with standard deviation 1.911 and post-test mean was 23.53 with standard deviation 1.717. In this group difference between pre & post-test Mean difference was 4.54. It was found that there was a significant difference between mean pre-test and mean

post-test anxiety level in experimental group which clearly shown that t- calculated value $t=17.784$ is more than t-table value at 0.05 level of significant, hence null hypothesis was rejected and research hypothesis was accepted. Progressive muscles relaxation technique was found to be effective in reducing anxiety level among elderly people.

Table 2: Control group (n=30)

Group	Mean	Standard Deviation	Mean Difference	t value	P value
Control	27.83	1.716			
pre-test			0.06	0.387	0.702
Control	27.77	1.621			
Post test					

*Significant at 0.05 level of significance

The above table shown that mean of anxiety score among elderly in control group during pre-test mean was 27.87 with standard deviation 1.716 and post-test mean was 27.77 with standard deviation 1.621. In this pre-test and post-test mean was almost same. Mean difference was 0.06. It was found that there was no significant difference between pre-test & post-test mean score which clearly indicated that there is no impact of any other factor causing in reducing anxiety level among the elderly people –hence null hypothesis accepted.

Section 4: Find out the association between the anxiety levels with selected demographic variables among elderly people of aged 60-70 years.

To find the association between anxiety level and selected demographic variables, the following research hypothesis was stated and tested at 0.05 level of significance.

There was no statistically significant association found between anxiety level and selected demographic variables such as elderly age (p= .117), gender (p= .745), religion (p= .888) marital status (p= .813), education (p= .474), source of information (p= .144), duration of staying old age home (p= .580), any physical mental & physical illness (p= .533).

The above results indicated that there was no significant association was found between post-test anxiety level with selected demographic variables in experimental group. Hence it found that Null Hypotheses H₀₂ was accepted.

4. Conclusion

In view of the positive results, the investigator believes that the study would benefit from widening scope and use a much larger sample.

This study has shown that the administration of Jacobson's progressive muscles relaxation technique was effective in reduction of anxiety among elderly people of aged 60-70 years in experimental group. There was no significant association between the post-test scores of anxiety level with selected demographic variables in experimental group.

The following conclusions were drawn from the "A study to assess the effectiveness of Jacobson's Progressive relaxation technique on anxiety among elderly people of aged 60-70 years in selected old age homes at New Delhi".

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