A pre experimental study to evaluate the effectiveness of Jacobson relaxation techniques on anxiety among post COVID geriatrics with co morbid illness residing in Muthialpet area, Puducherry.

Section A-Research paper

A PRE EXPERIMENTAL STUDY TO EVALUATE THE EFFECTIVENESS OF JACOBSON RELAXATION TECHNIQUES ON ANXIETY AMONG POST COVID GERIATRICS WITH CO MORBID ILLNESS RESIDING IN MUTHIALPET AREA, PUDUCHERRY

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Abstract

Background: Elderly people are particularly vulnerable to COVID-19, especially those with underlying illnesses. Additionally, a study discovered that SARSCoV-2 infection is more frequently linked to negative outcomes in the elderly population than in younger age groups. Given the potential adverse effects of long-term anxiety on overall well-being, it is crucial to explore effective non-pharmacological interventions to alleviate anxiety symptoms. **Aim:** This pre-experimental study aims to investigate the effectiveness of Jacobson relaxation techniques in reducing anxiety levels among post-COVID geriatric individuals with co-morbid illnesses. **Subjects and Methods**: The study utilizes a pre-test/post-test design without a control group. The 41 participants had undergone a relaxation intervention based on Jacobson's progressive muscle relaxation technique for duration of about 1 week. Anxiety levels will be measured using standardized anxiety scale, Hamilton anxiety scale before and after the intervention. **Result:** The results depicts that there is a significant change in anxiety levels before and after the Jacobson relaxation intervention. **Conclusion:** The study's findings contribute to understand the potential benefits of relaxation techniques in managing anxiety among post-COVID geriatric individuals with co-morbid illnesses.

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INTRODUCTION:

The majority of developed nations adopt the definition of elderly or older individuals as those who are chronologically 65 years of age or older. Around 8% of the world's population, or 524 million people, were predicted to be 65 or older in 2010. The number of elderly people is predicted to nearly triple to 1.5 billion by 2050, making up 16% of the global population. [1]

Elderly people are particularly vulnerable to COVID-19, especially those with underlying illnesses. Initial research on COVID-19 showed greater incidences in those aged 49 to 55 years old. The prevalence of the disease was found to be higher in those over 60 than in younger people in later investigations with larger sample sizes. According to reports, mortality from COVID-19 was 83.7% for individuals over 70 and 16.2% for those under 69 in developed nations with large older populations. In 32-51% of the instances, underlying illnesses were discovered. Additionally, a study discovered that SARSCoV-2 infection is more frequently linked to negative outcomes in the elderly population than in younger age groups. [2]

NEED FOR THE STUDY:

For COVID-19, the elderly population is particularly at risk .The hazards for senior adults are increased by predisposition and catastrophic results. The two primary risk factors for COVID-19 vulnerability have been identified as advanced age and underlying illnesses. A significant risk factor is age 60 years. In 32–60% of instances, co-morbidities are the primary underlying aetiologies. The specific rates are 16–20% for diabetes, 15–41% for hypertension, and 14–15% for cardiovascular disease and chronic obstructive pulmonary disease .[3]

The COVID-19 pandemic, WHO has advocated for a strategy of seclusion known as "social distancing" to stop transmission.[4] This approach has resulted in an elderly population living alone at home or in a facility, which could have negative effects on the wellbeing of the elderly. Anxiety, a sense of wrath, emotional disturbance, stress, impatience, lack of focus, sadness, and post-traumatic stress disorder (PTSD) are examples of psychological effects. Anxiety is a prevalent psychological symptom experienced by post-COVID geriatric patients with co-morbid illnesses. [5]

Given the potential adverse effects of long-term anxiety on overall well-being, it is crucial to explore effective non-pharmacological interventions to alleviate anxiety symptoms. Jacobson relaxation techniques, based on progressive muscle relaxation, have shown promise in reducing anxiety in various populations. However, their effectiveness in the specific context of post-COVID geriatrics with co-morbid illnesses remains relatively unexplored.

STATEMENT OF THE PROBLEM:

A pre experimental study to evaluate the effectiveness of Jacobson relaxation techniques on anxiety among post COVID geriatrics with co morbid illness residing in Muthialpet area, Puducherry.

OBJECTIVES:

- To assess the level of anxiety before the administration of Jacobson relaxation technique among post COVID geriatrics with co morbid illness.
- To evaluate the effectiveness of Jacobson relaxation techniques on anxiety among post COVID geriatrics with co morbid illness.

METHODS:

The study recruit a convenience sample of post-COVID geriatric individuals (aged 60 years and above) with co-morbid illnesses who report elevated

anxiety levels. The sample size is 41. The inclusion criteria were post COVID person aged above 60 years with co-morbid illness, those who are willing to participate in the study and those who can speak English and Tamil. The exclusion criteria were geriatrics those who are not willing to participate and those who cannot perform Jacobson relaxation technique. The tools include section – A socio demographic variables and section – B Hamilton Anxiety Rating Scale (HARS) .The scale consisted of 14 questions which were filled by the subjects by marking the numbers given in the scale. In which 0= Not present, 1= mild, 2 = moderate, 3= severe, 4=very severe. After addition, a total score range of 0–56, where the score of < 17 indicate mild, 18 – 24 score indicates mild to moderate and 25 – 30 indicate moderate to severe.

PROCEDURE:

After obtaining ethical approval, eligible participants are invited to participate voluntarily. Informed consent was obtained from all the participants. Baseline measurements of anxiety are collected using validated anxiety assessment tools. Following the baseline assessment, participants received a relaxation intervention based on Jacobson's progressive muscle relaxation technique. The intervention is administered by trained facilitators and conducted over a predetermined number of sessions. Each session last approximately for about 10 to 15 minutes duration for about 1 week. Participants are encouraged to practice the technique independently between sessions.

Table 1:Frequency distribution of subjects according to demographic variables.

Demographic variables	Frequency (%)
AGE	
60-64	09 (21.9)
65-69	13(31.7)
70-74	08(19.5)
75 and above	11(26.8)
SEX	
Male	23(56.09)
Female	18(43.9)
MARITAL STATUS	
Married	19(46.3)
Widow	22(53.6)
TYPE OF FAMILY	
Nuclear	31(75.6)
Joint	10(24.3)
EDUCATIONAL STATUS	
Illiterate & primary	25(60.9)
High school	5(12.1)
Higher secondary	6(14.6)
Graduate	5(12.1)
SOURCE OF INCOME	
Salary	10(24.3)
Pensioner	19(46.3)
Dependent	12(29.2)
MONTHLY INCOME	
<10,000	28(68.2)
>10,000	13(31.7)
COMORBID ILLNESS	
One	26(63.4)
Two	11(26.8)
More than two	04(9.7)

The above table 1, shows that among 41 participants 13 were in the age group of 65 – 69, 23 were male, 31 were living in nuclear family, 19 were pensioner and 28 were getting monthly income less than Rs. 10,000. Most of the i.e 63.4% had only one comorbid illness.

Table 2: Comparison of pre and post scores

N=41

VARIABLE	Pre Mean ± SD	Post Mean ± SD	Mean DIFF	t value	p value
Anxiety	16.02±8.79	13.17±8.42	2.85	8.783	< 0.0001

The above table 2, shows that the pre mean was 16.2 (SD 8.79). After the administration of relaxation technique the post mean was found to be 13.17 (SD 8.42). Hence the above findings indicated that the participants showed statistically significant improvement in mean difference.

DATA ANALYSIS:

Descriptive statistics were used to summarize the demographic characteristics of the participants. Paired t-tests to analyze pre- and post-intervention differences in anxiety scores. The significance level was set at $p < 0.05$.

OUTCOME MEASURES:

Anxiety levels assessed using standardized anxiety scale, the Hamilton Anxiety Rating Scale (HARS). The anxiety levels are assessed before the intervention (pre-test) and after the completion of the intervention (post-test).

RESULTS AND DISCUSSION:

The results depicts that there is a significant change in anxiety levels before and after the Jacobson relaxation intervention. The present study findings were supported by the study done by Kareem M & Taher DH that relaxation techniques decreases the anxiety level.[6] Similar studies also reported the same findings. [7-10]

CONCLUSION:

This pre-experimental study aims to contribute to the growing body of knowledge regarding the effectiveness of Jacobson relaxation techniques in reducing anxiety levels among post-COVID geriatric individuals with co-morbid illnesses. The findings also inform healthcare professionals and policymakers about potential non-pharmacological interventions that can be integrated into comprehensive care plans for this vulnerable population.

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