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Tamilarasi B
Principal, Tamil Nadu Dr.
MGR Medical University,
Chennai, Tamil Nadu, India

Jessy Rani P
Professor, Tamil Nadu Dr.
MGR Medical University,
Chennai, Tamil Nadu, India

Arthi S
B.Sc. Department of Nursing,
3 Year Students, Madha
College of Nursing, Chennai,
Tamil Nadu, India

Indumathi M
B.Sc. Department of Nursing,
3 Year Students, Madha
College of Nursing, Chennai,
Tamil Nadu, India

Manibharathi S
B.Sc. Department of Nursing,
3 Year Students, Madha
College of Nursing, Chennai,
Tamil Nadu, India

Reegan R
B.Sc. Department of Nursing,
3 Year Students, Madha
College of Nursing, Chennai,
Tamil Nadu, India

Vikram R
B.Sc. Department of Nursing,
3 Year Students, Madha
College of Nursing, Chennai,
Tamil Nadu, India

A study to assess the effectiveness of selected recreational activity on stress among elderly people in selected old age home at Chennai

Tamilarasi B, Jessy Rani P, Arthi S, Indumathi M, Manibharathi S, Reegan R and Vikram R

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Abstract
The aim of the study was to evaluate the effectiveness of selected recreational activity on stress among elder. Pre-experimental one group pre-test and post-test design was used to conduct the study. The study was done on 30 selected sample by purposive sampling technique from a selected old age home at Chennai. Pre-test was done to the 30 sample by using modified perceived stress scale is a 10-item questionnaire originally developed by Cohen, *et al.* in (1983) to assess the level of stress. After obtaining permission from the concerned authorities, the selected recreational activity that comprises of painting using the stress reducing colours for elderly people (Blue, Pink, Green) and yoga dance exercise was demonstrated for 30- 45 minutes per day for 6 days to reduce the level of stress. The post-test was done le by using the same tool. The study findings revealed that there was a significant difference in the mean stress score before and after selected recreational activity. Hence the hypothesis H1 is accepted, which shows the effectiveness of selected recreational activity on stress reduction among elderly people.

Keywords: Recreational activity, stress, demographic variables, perceived stress scale

Introduction

According to united nation, there were 703 million people aged 65 or over in 2019, eastern and south eastern Asia was home to the largest number of the world's older population (260) following by Europe and northern America. According to the report of the technical group on population projection for India and state 2011-2036, there are nearly 138 million elderly person in India in 2021 (67 million are male and 71 million are female) and in further expected to increase around 56 million elder people in 2031. The report released by the ministry of statistics and programme implementation, "Elderly India 2021, 13.6% of the Population in Tamil Nadu has senior citizen, and it is second largest number of elder people state in India next to Kerala.

Stress is s a normal physical, mental and emotional reaction or response to the ever-increasing demands of life, for seniors, stress often manifests itself in more physical ways, including health problems. So, if someone already has some chronic health conditions, it may mask these common symptoms of stress. Additionally, chronic stress can also lead to more severe health problems like heart disease, high blood pressure and diabetes. Those living in a constant state of stress are also prone to illnesses like a cold or the flu and chronic illness.

Statement of the problem

A study to assess the effectiveness of selected recreational activity on stress among elderly people in selected old age home at Chennai.

Objectives

- To assess the pre-test and post-test level of stress among elderly people.
- To evaluate the effectiveness of selected recreational activity on stress among elderly people.

Corresponding Author:
Tamilarasi B
Principal, Tamil Nadu Dr.
MGR Medical University,
Chennai, Tamil Nadu, India

- To find the association difference between post-test level of stress among elderly people with their selected demographic variables.

Hypothesis
H 1: There will be a significant difference in the pre-test and post-test level of stress among elderly people.
H2: There will be a significant association between post-test levels of stress among elderly people with their demographical variables.

Methodology
Quantitative research approach was adopted for the study. Pre experimental one group pre-test and post-test research design was selected. The study was conducted in AVAI old age home in Chennai. The total sample was 30 elderly people between the age group of 50-65 years who fulfilled the inclusion criteria was chosen by using purposive sampling technique. Investigator would introduce herself and the purpose of the study was explained to ensure for better co-operation then the pre-test was conducted by using modified perceived stress scale that consists of 10 questions and the intervention was done by the selected recreational activity that comprises of painting using the stress reducing colours for elderly people (Blue, pink, green) for 30 minutes and yoga dance exercise was demonstrated for 30-45 minutes per day for 6 days to reduce the level of stress. The post-test was done by using the same tool.

Results and Discussion
Majority of the sample, 26(86.7%), were in the age group of 61 to 65 years, indicating that the sample predominantly consists of older individuals. In the aspect of gender, there was a slightly higher representation of female samples 17(56.7%) than males 13(43.3%). Marital status reveals that a significant portion, 17(56.7%) of the sample were married, 10(33.3%) were unmarried, and 10.0% were widowed. In respect to religion, the vast majority of the sample, 29(96.7%) were Hindus, while only 1(3.3%) was Muslim, and there were no samples from the Christian religion. Educational background shows that the highest proportion, 22(73.3%) had completed schooling, while 5(16.7%) had attained high school education and remaining a small fraction 3(10.0%) had pursued undergraduate (UG) education. Socioeconomic status reveals that a substantial portion, 21(70.0%) belonged to the middle socioeconomic class, while 8(26.7%) were within the low socioeconomic class, and a small fraction 1(3.3%) were from high socioeconomic class. In terms of the type of work, the most of the sample 18(60.0%) were engaged in moderate (Settled) work, while 9(30.0%) were involved in low-intensity work and 3(10.0%) were engaged in heavy work. In the aspect of duration of stay, 11(36.7%) of the sample were in the old age home for 1-2 years, while 8(26.7%) for less than 1 year, and remaining 11(36.7%) for more than 2 years.

Table 1: Frequency and percentage distribution of sample according to demographic characteristics N = 30

SL. No	Demographic Characteristics	F	%
1	**Age in Years**		
	45-50	1	3.3
	51-60	3	10.0
	61-65	26	86.7
2	**Sex**		
	Male	13	43.3
	Female	17	56.7
3	**Marital Status**		
	Married	17	56.7
	Unmarried	10	33.3
	Widow	3	10.0
4	**Religion**		
	Hindu	29	96.7
	Muslim	1	3.3
	Christian	0	0.0
5	**Education**		
	School	22	73.3
	High School	5	16.7
	UG	3	10.0
	PG	0	0.0
6	**Socio economic status**		
	Low class	8	26.7
	Middle class	21	70.0
	High class	1	3.3
7	**Type of work**		
	Low work	9	30.0
	Settled work	18	60.0
	Heavy work	3	10.0
8	**Duration**		
	< 1 Year	8	26.7
	1-2Year	11	36.7
	>2Year	11	36.7

The objective first was to assess the pre and post-test level of stress among elderly people

All the samples 30(100.0%) reported that they had moderate level of stress. The finding shows that the elderly individuals had a relatively high level of stress prior to the recreational intervention. After engaging in the recreational activities, there was a notable decrease in the moderate level of stress category, with only 3(10.0%) of samples remaining in the category and all the other samples 27(90.0%) had

mild stress, which revealed a significant positive impact in reducing the stress levels.

Before the selected recreational activity, the all the samples experienced moderate stress, but after engaging in recreational activities, a substantial proportion reported mild stress. These findings highlight the importance of considering recreational interventions as a means to promote the well-being and stress management of elderly people
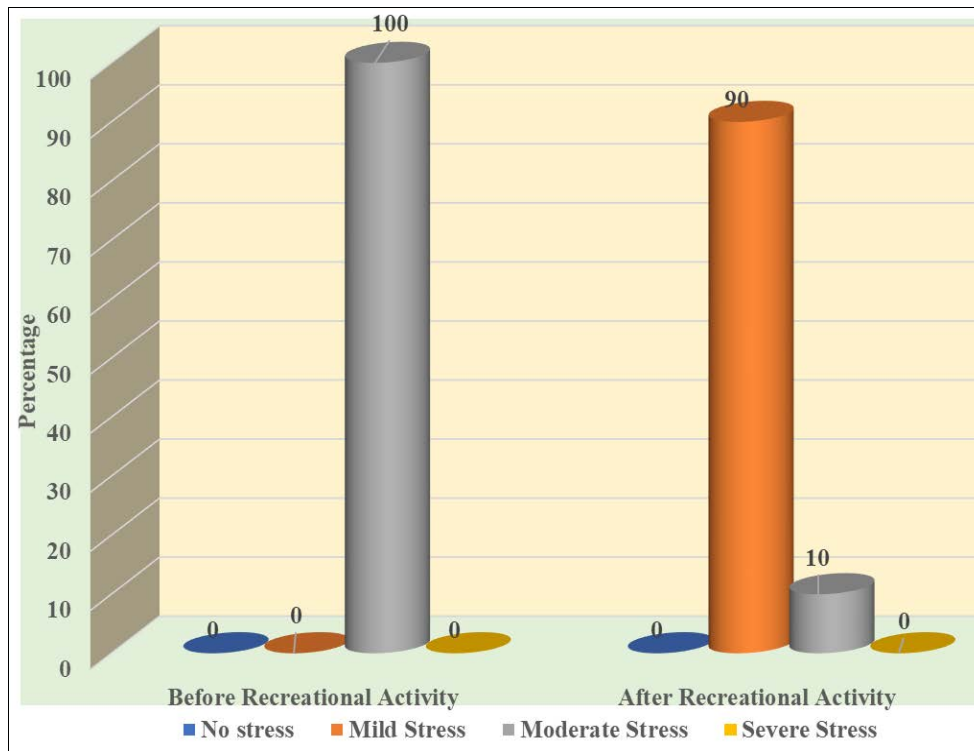
Fig 1: Presents the frequency and percentage distribution of level of stress among elderly people before and after selected recreational activity.

The second objective was to evaluate the effectiveness of selected recreational activity on stress among elderly people

Before participating in the recreational activity, the mean stress score among the elderly participants was 25.83, with a standard deviation of 3.13. This baseline measurement indicates that, on average, the group had a relatively high level of stress before the recreational intervention. After engaging in the recreational activities, the mean stress score was 13.97, accompanied by a standard deviation of 3.66. Which reveals that the recreational activities had a substantial positive impact on the elderly people, leading to a significant decrease in their stress levels. The paired t-

value, which was 13.487 with 29 degrees of freedom (DF), was notably high. The corresponding significance value was reported as less than 0.05 ($p<0.05$), indicating high level of statistical significance.

The table concluded that, statistically, there was a significant difference in the mean stress score before and after selected recreational activity. Hence the hypothesis, H_1 is accepted, which shows the effectiveness of selected recreational activity on stress reduction among elderly people. The findings highlight the potential value of incorporating recreational interventions as part of stress management strategies for elderly populations.

Table 2: Mean stress score and standard deviation among elderly people before and after selected recreational activity, N=30

Observation	Mean	Standard Deviation	Paired t-value DF = 29	Sig Value
Before recreational activity	25.83	3.13	13.487 *	0.000
After recreational activity	13.97	3.66		

* Significant at $p<0.05$

Table 2 presents the mean stress score and standard deviation among elderly people before and after selected recreational activity and its level of significance.

The third objective was to find the association between post-test levels of stress among elderly people with their

selected demographic variables

The finding from the table reveals that there was no significant association between the selected demographic characteristics such as age, sex, marital status, and education, type of work and duration with the level of stress among elderly people after selected recreational activity

Table 3: Association between the demographic characteristics and the level of stress among elderly people after recreational activity. N=30

SL. No.	Demographic Characteristics	Level of Stress		χ^2 value DF	Significant Value
		Mild	Moderate		
1	Age				
	≤ 60 Years	3	1	1.154 NS	0.283
	> 60 Years	24	2	DF=1	
2	Sex				
	Male	12	1	0.136 NS	0.713
	Female	15	2	DF=1	
3	Marital Status				
	Married	16	1	0.739 NS	0.390
	Unmarried	11	2	DF =1	
4	Education				
	School/High School	25	2	2.017 NS	0.156
	UG	2	1	DF=1	
5	Type of work				
	Low work	8	1	0.018 NS	0.894
	Settled/Heavy work	19	2	DF=1	
6	Duration				
	< 1 Year	6	2	2.727 NS	0.099
	≥ 1Year	21	1	DF=1	

NS-Not significant at $p<0.05$ * - Significant at $p<0.05$

Table 3 presents the association between the demographic characteristics and the level of stress among elderly people after recreational activity.

Conclusion
The present study was conducted to evaluate the effectiveness of selected recreational activity on stress among elder. The study findings showed that there was a significant difference in the mean stress score before and after recreational activity. Hence, the hypothesis H1 is accepted, which shows the effectiveness of selected recreational activity on stress reduction among elderly people.

Conflict of Interest
Not available

Financial Support
Not available

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