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## Effectiveness of dance therapy on stress among old age people

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### Abstract

**Background:** Stress is a common occurrence in day-to-day life and sometimes it will be a reaction or sometime will be a stimulus. The main goals of the study were to assess the level of stress among old age people and effectiveness of dance therapy in reduction of stress.

**Methodology:** The research design selected for the study was pre-experimental one group pretest and post-test research design". A non-probability convenience sampling techniques was used to obtain sample of 60 old age people who satisfied the inclusion criteria. The modified psychological stress assessment scale, which is a standardized measure for assessing the level of stress among old age people, was administered to conduct the pre-test and the post-test. This tool contains 30 items. This is a 4 point scale and the total score is 90. After assessing the pre-test stress level, dance therapy was provided to each sample for 30 days for duration of 45 minutes per day each morning. After 30 days stress was measured by using same modified psychological stress assessment scale.

**Results:** Mean of the pre-test and post-test was (61.05) and (25.85) and Standard Deviation of the pre-test and post-test was (11.89) and (8.27). The Mean difference was (35.2). The calculated 't' value (25.29) was greater than the table value (1.67) at 0.05 level of significance. This showed that there was a significant difference between pre-test and post- test level of stress scores among old age people. Calculated chi square value was significant with age, educational status and duration of stay at old age homes and other variables were not significant.

**Conclusion:** From the results of the study, it was concluded that the Dance Therapy was effective in reducing the stress level among old age people.

**Keywords:** Dance therapy, effectiveness, stress, old age people, old age home

### Introduction

Stress is a common physical, mental, and emotional response to situations that disrupt day-to-day existence<sup>[1]</sup>. Due to social complexity or personal high aspirations, people experience stress in varying degrees extremely frequently in all facets of their lives. Stress affects health by reducing disease resistance and increasing susceptibility to sickness<sup>[2]</sup>.

The elderly population is one of society's weakest groups. They are not only weak physically, but they also lack social standing, self-esteem, and financial means. Elderly persons are more susceptible to illness and impairment, yet they have different physical characteristics when it comes to the mental health of those they accept. Some mental illnesses are more common throughout this stage of life<sup>[3]</sup>.

Globally, there were 382 million elderly people in 1980; by 2017, that number has increased to 962 million and by 2050, it is projected to have nearly doubled to 2.1 billion. According to the Population Census, there were 104 million senior people in India in 2011. India is home to 67 million males and 71 million women that are over the age of 60 as of 2021. According to projections from the United Nations Population Fund and Help Age India, it will reach 173 million by 2026<sup>[4]</sup>.

There is a high chance of mental health issues among elderly persons. However, this does not imply that mental health issues are a necessary component of ageing<sup>[5]</sup>. The majority of senior citizens will eventually adapt to the adjustments. However, other people will find it more difficult to adapt. This may increase their vulnerability to mental disorders<sup>[6]</sup>.

Environmental stressors, physiological stressors, social stressors, and changes in any aspect of lifestyle can all contribute to stress in older people. Physical and psychological issues are prevalent as people age<sup>[7]</sup>.

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Retirement, the death of a spouse, close friends, a child, or a grandchild are a few reasons why elderly people experience stress. These situations are frequently very difficult for them to handle, leaving them feeling alone and isolated and contributing to stress. Another factor contributing to older stress is declining physical and emotional health. Physical appearance, cognitive loss, and disabilities can also make elderly people feel stressed<sup>[8,9]</sup>.

According to the American Dance Therapy Association, movement is used as a form of therapy to assist people in achieving emotional, cognitive, physical, and social integration. This therapy is commonly referred to as dance therapy or DMT<sup>[10]</sup>. Dance therapy can be utilized for stress reduction, disease prevention, and mood management, all of which are advantageous for both physical and mental health. The physical aspect of DMT also provides improved muscular strength, coordination, mobility, and reduced muscular stress. Regardless of the population, dance/movement therapy can be done with individuals, couples, families, or groups<sup>[11,12]</sup>.

The researcher also noted that it would be especially helpful for those under more stress, thus she chose elderly stress sufferers for the study. They are able to communicate their difficulties by being forced to undergo dance therapy. In turn, this lowers their stress levels and keeps their minds relaxed. Therefore, the purpose of this study is to gauge the degree of stress among seniors and determine whether dance therapy has any impact on that level of stress.

**Materials and Methods:** The study was carried out in the Mehsana district's Unjha, Valam, and Vijapur old age

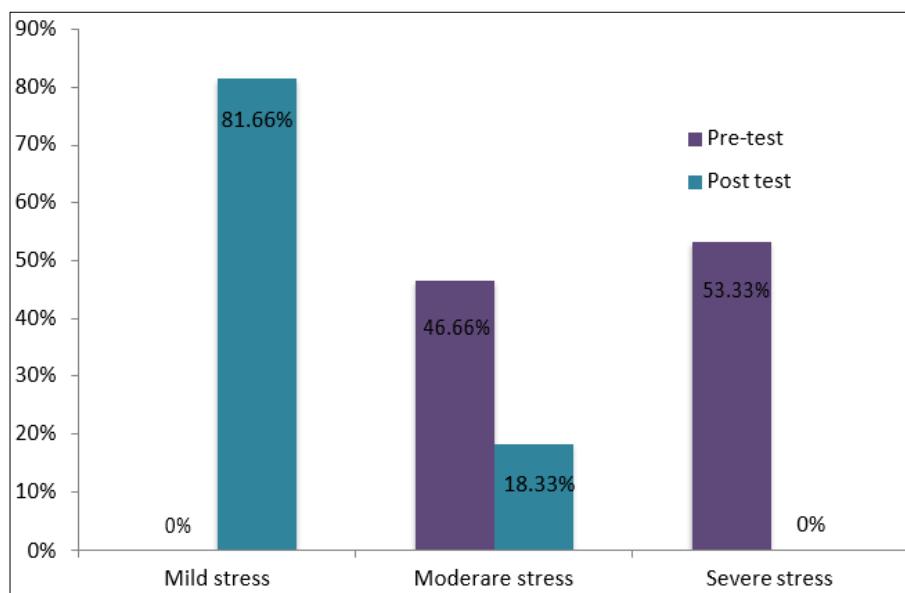
homes. Pre-experimental one-group pre-test and post-test research design was chosen for the investigation. A non-probability convenient sampling method was employed to collect 60 samples of participants who met the inclusion criteria. The pre-test and post-test were conducted using the modified psychological stress assessment scale, a standardized tool for determining the level of stress among seniors. This tool has 30 items. The total score on this 4-point scale is 90. After determining the pre-test stress level, each sample received dance therapy for 30 days, lasting 45 minutes each morning. A modified psychological stress assessment scale was used to measure stress after 30 days. The data were examined using the mean, standard deviation, t-test, and chi square test.

**Results**

**Table 1:** Frequency and percentage distribution of pre-test and post- test level of stress scores among old age people

Level of stress	Pre-test		Post-test	
	F	%	F	%
Mild stress (0-30)	00	0%	49	81.66%
Moderate stress (31-60)	28	46.66%	11	18.33%
Severe stress (61-90)	32	53.33%	00	0%

Table 1 shows that prior to the administration of dance therapy, in pre-test (53.33%) of the all are sample had severe stress and (46.66%) had moderate stress. In the post-test there was marked improvement in the level of stress of the sample with (18.33%) moderate level of stress and (81.66%) mild stress.



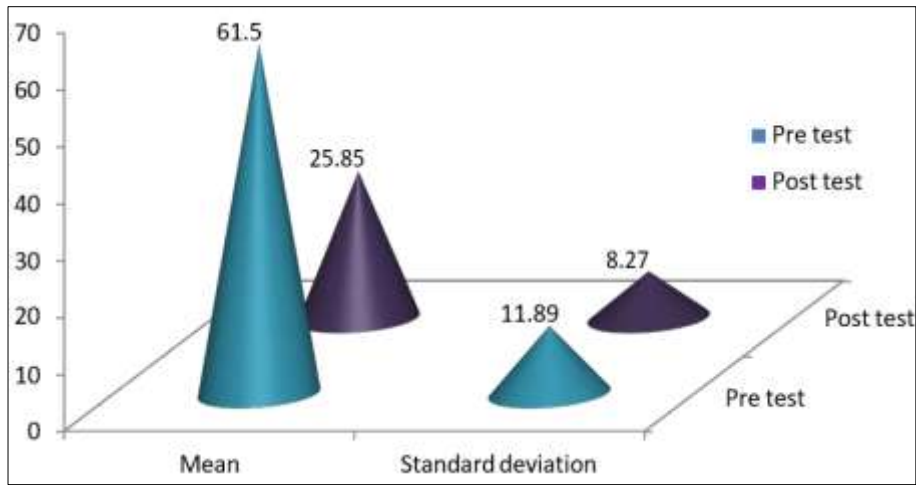
**Fig 1:** Pre-test and Post-test level of stress score among old age people

**Table 2:** Mean, S.D, Mean difference and 't' value of pre-test and post-test level of stress scores of effectiveness of Dance therapy.

Parameter	Mean	Standard deviation	Mean difference	't' value	Table 't' value	Level of Significance 0.05
Pre-test	61.05	11.89	35.2	25.29	1.67	S
Post-test	25.85	8.27				

Table 2 shows that the Mean of the pre-test and post-test was (61.05) and (25.85) and Standard Deviation of the pre-test and post-test was (11.89) and (8.27).The Mean difference was (35.2).The calculated 't' value (25.29) was greater than the table value (1.67) at 0.05 level of

significance. This showed that there was a significant difference between pre-test and post-test level of stress scores among old age people. Thus it was evident that dance therapy was effective on reducing the level of stress among old age people.



**Fig 2:** Effectiveness of dance therapy on reducing level of stress among old age people

**Table 3:** Association of post-test level of stress scores among old age people with their selected demographic variables N=60

Variables	Category	Frequency	Post-test level of stress				Table value	Chi-Square test	Significant >0.05%
			Mild (0-30)		Moderate (31-60)				
			N	%	N	%			
Age	61-65	19	17	29.47%	2	10.5%	7.82	10.58	S
	66-70	23	20	86.9%	3	13.04%			
	71-75	12	10	83.33%	2	16.66%			
	76-80	6	2	33.33%	4	66.66%			
Sex	Male	24	18	75%	6	25%	3.84	1.12	NC
	Female	30	31	80.11%	5	13.8%			
Marital Status	Unmarried	9	7	77.7%	2	22.22%	7.82	0.51	NS
	Married	31	28	84.8%	5	17.8%			
	Widowed	11	10	90.9%	3	23.07%			
	Divorced	5	4	80%	1	20%			
Religion	Hindu	52	44	84.0%	8	15.38%	5.99	3.09	NS
	Christian	4	3	75%	1	25%			
	Muslim	4	2	50%	2	50%			
	Other	0	0	0%	0	0%			
Education	Uneducated	15	8	75%	5	53.40%	9.49	10.30	S
	Primary education	11	7	63.63%	4	36.36%			
	Secondary education	14	13	92.85%	1	7.14%			
	Weber Secondary education	16	15	93.75%	1	6.25%			
	Graduates	0	6	100%	0	0%			
Previous occupation	Government	9	0	00.00%	5	53.53%	7.82	3.62	NS
	Semi government	10	14	75%	4	25%			
	Private	25	23	92.5%	2	8%			
	Other	10	8	80%	2	20%			
Source of income	Pensioner	12	8	65.00%	4	33.33%	5.99	3.99	NS
	Support from children	32	29	90.0%	3	9.37%			
	Dependent on old age home	16	12	75%	4	25%			
	Others	0	0	0%	0	0%			
Method of joining in old age Home	Voluntary	18	15	85.55%	5	10.0%	5.99	3.68	NS
	Brought by children/other	23	21	91.3%	2	8.69%			
Duration of stay at old age home	Others	19	13	68.42%	6	31.57%	5.99	8.37	S
	Less than 1 year	12	7	58.33%	5	41.66%			
	1 to 3 year	15	11	73.33%	4	26.66%			
Medical illness	More than 3 year	33	31	93.9%	2	6.06%	9.49	3.40	NS
	Diabetes	26	22	84.6%	4	15.38%			
	Hypertension	18	15	83.33%	3	16.66%			
	Asthma	2	1	50%	1	50%			
	Any other specify	9	8	88.9%	1	11.11%			
Nil	5	3	60%	2	40%				

Table 3 According to chi-square analysis, there was a correlation between age, educational attainment, and the length of residence in an old age home and the post-test level of stress scores. The study came to the conclusion that there was a strong correlation between the post- test stress

levels among seniors and the chosen demographic factors. Table 1 reveals that (53.33%) of the entire sample had severe stress and (46.66%) had moderate stress prior to the delivery of dance therapy. There was a noticeable change in

the sample's stress level in the post-test, with moderate stress levels (18.33%) and light stress levels (81.66%).

### Discussion

The aim of the study was to assess the oniomania on working women and men. The results of the study that the oniomania is higher in working women compare to men.

A study on the impact of dance therapy on stress and anxiety among working women by Manali B., *et al.* (2020) provides support for the findings of our study. Additionally, this study discovered that dance therapy was effective in helping working women reduce their stress and anxiety<sup>[13]</sup>.

In a study by Iris Brauningner (2012), dance movement therapy was used as a group intervention for stress management. According to the study's findings, dance movement therapy is an effective and novel way to relieve stress<sup>[14]</sup>.

### Conclusion

The study's findings led to the conclusion that elderly people living in nursing homes experience high levels of stress. To lower the stress level, they need various measures. The study's findings show that there is a substantial relationship between demographic factors including age, education, and the length of stay in an old age home, whereas other factors are not significantly related to the level of stress. The 't' value was 25.29, greater than the table value at [p 0.05] level, indicating that older adults' stress levels decreased as a result of dance therapy. It is an effective strategy to lower elderly people's stress levels.

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