

# Laughing for Well-Being: Investigating the Impact of Laughter Therapy on Stress Levels among the Elderly Population

Rahul K. Damor

Department of Mental Health Nursing, Shashikala Dhansukhlal Dadarwala College of Nursing, Dahod, Gujarat, India

## Abstract

**Background:** The aim of the study was to evaluate the impact of laughter therapy on the degree of perceived stress experienced by elderly residents of a particular assisted living facility.

**Methods:** A pre-experimental, one-group, pre-test–post-test research design was employed. The technique of purposeful sampling was applied. A selection of thirty samples was made. The study’s participants were senior citizens living in retirement communities in a designated district.

**Findings:** During the pretest, two samples (6.66%) reported low stress, twelve samples (40%) reported moderate stress, and sixteen samples (53.33%) reported high perceived stress. The mean difference was determined to be 11.7, with the mean pre-test score being 26.4 and the mean post-test score being 14.7. It demonstrates that there was a substantial difference between the mean pre-test and post-test scores. Thus, following the application of laughter therapy, the samples’ perceived stress levels decreased.

**Conclusion:** Laughter therapy is beneficial in lowering stress levels in the elderly population, according to this study. Thus, we can conclude that laughter therapy is beneficial for stress relief.

**Keywords:** Laughter therapy, stress, elderly population, old age home

## INTRODUCTION

Individuals undergo a variety of physical, psychological, and social changes as they age, which is a normal and ongoing process. Specific aging-related stressors, such as declining health status, dependency, and social isolation, may be experienced by older persons. These stressors can have an impact on both physical and psychological health.<sup>[1]</sup> One kind of yoga that combines a roar of delight with a wonderful

sense of humor is called laughter therapy. Known by another name, humor therapy encourages patients to laugh naturally and unforcedly to relieve stress or workload.

It is considered a good remedy without any side effects and is free for everyone in their day-to-day healthy life.<sup>[2]</sup> Some research indicates that older adults often face unique stressors related to factors such as declining health status, loss of loved ones, financial concerns, cognitive and sensory impairments, and social isolation.<sup>[3]</sup> Moreover, the cumulative effects of stress over a lifetime can exacerbate age-related health issues and contribute to a decline in overall quality of life among seniors.<sup>[4]</sup>

In these challenges, laughter therapy has emerged as an important intervention for relieving stress and promoting well-being among older adults. Laughter therapy, also known as laughter yoga or laughter meditation, utilizes humor and laughter as therapeutic tools to relieve stress, improve mood, and enhance overall quality of life.<sup>[5]</sup> Furthermore,

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### Address for Correspondence:

Rahul K. Damor, Department of Mental Health Nursing, Shashikala Dhansukhlal Dadarwala College of Nursing, Dahod, Gujarat, India. E-mail: [rk6296damor@gmail.com](mailto:rk6296damor@gmail.com)

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psychological factors such as loneliness, depression, and anxiety often co-occur with stress in older adults, creating a complex interplay between emotional well-being and physical health.<sup>[6]</sup>

Some research indicates that older adults often face unique stressors related to factors such as declining health, loss of loved ones, financial concerns, and social isolation. Moreover, the cumulative effects of stress over a lifetime can exacerbate age-related health issues and contribute to a decline in overall quality of life among seniors.<sup>[4]</sup> Laughter therapy offers a holistic and accessible approach to stress management for older adults. It has been demonstrated that laughter therapy increases the body’s natural painkillers and endorphins and promotes relaxation by lowering stress hormone levels, including cortisol.<sup>[7]</sup> It is having a belief that spontaneous laughter will cure physiologically and psychologically. The practice of “laughter therapy” has numerous health benefits and can be done alone or with peers. After around 20 min of laughter therapy, the body experiences several changes, including lower blood pressure, a faster heartbeat, and less tension in the muscles. To deal with stress, it encourages the body’s natural flight or fight response.<sup>[8]</sup> It induces a feeling of physical, psychological, and emotional relaxation.<sup>[9]</sup> Dr. Maden Kataria and several pals started a laughter club in Mumbai in the middle of the 1990s to deal with their sadness, but it only lasted for 10 days before the therapy changed and became uncomfortable.

Hence, they decided to do it with his wife in the form of traditional exercise and they started practicing and they found that laughter has a similar breathing pattern used in pranayama, he is the founder of laughter therapy in India.<sup>[10]</sup> Laughter is an emotional response to an environment, situation, or stimuli. The current research indicates that laughter has qualifiable positive physiologic benefits, strengthening an immune system, maintaining health and wellness, helping individuals to cope with stress, and reducing anxiety.<sup>[11]</sup>

In conclusion, aging is accompanied by unique stressors that can impact the overall health status of older adults. Addressing stress in later life is essential for promoting healthy aging and optimizing the quality of life among elderly people. Laughter therapy offers a free-of-cost remedy for stress management, providing a natural, enjoyable, and accessible intervention that can benefit older adults of all backgrounds and abilities.

**Objectives**

1. To assess the level of stress among old age people
2. To assess the effectiveness of laughter therapy on stress among old age people
3. To find the association between the effectiveness of laughter therapy on stress among old age people with selected demographic variables.

**METHODS**

**Research design**

One-group, quasi-experimental research design, pre-test–post-test research design, was adopted for the present investigation.

**Research setting**

The elderly homes in Gujarat’s Gandhinagar district served as the study’s research site. The setting was chosen with the feasibility of the study and the ease of sample access in mind.

**Population**

The study’s target audience is thirty elderly individuals who are experiencing stress in particular old age homes located in Gujarat’s Gandhinagar area, out of a total population of seventy five.

**Sample quantity and sampling methodology**

The researcher used a proportionate purposive sampling methodology to choose the sample, and thirty elderly individuals who were under stress were included in the research. The target population is selected for the sample using the perceived stress scale.

**Data analysis plan**

Section I: The investigator intended to analyze the personal data by using frequency and percentage of Demographic information present in the Table 1.

Section II: Mean, standard deviation, t-test, Chi-square test, and other statistical analyses will be performed on the data acquired by utilizing the perceived stress scale; both before and after laughter treatment was administered. The results will be displayed as tables.

**RESULTS OF THE STUDY**

Table 1 presents demographic information about the samples based on frequency and proportion. Nine samples (30.0%) fall into the 65–74 age group, fifteen samples (50%) fall into the 75–84 age group, and six samples (20%) fall into the 85 and beyond age group. 16 (53.33%) of the samples are classified as male samples, and 14 (46.66%) as female samples. According to marital status, six (20%) of the samples were married, zero (0) were single, six (20%) were divorced, and eighty-six (60%) of the samples were widows or widowers.

Table 2 shows the frequency and percentage distribution of pre-test score, i.e., before administration of laughter therapy to the samples. In the pre-test, 2 (6.66%) samples had low

**Table 1: Distribution of sample demographic variables by frequency and percentage**

Sr. no.	Demographic variable	Frequency	Percentage
1.	Age in years		
	65–75 years	9	30
	75–84 years	15	50
2.	85 and above	6	20
	Gender		
	Male	16	53.33
3.	Female	14	46.66
	Transgender	0	0
	Marital status		
	Married	6	20
	Unmarried	0	0
	Widow/Widower	18	60
	Divorced	6	20

stress, 12 (40%) samples had moderate stress, and 16 (53.33%) samples had high perceived stress.

Table 3 shows the frequency and percentage distribution of post-test scores, i.e., after provision of laughter therapy to the samples. In the post-test, 8 (26.66%) samples had low stress, 22 (73.33%) had mild moderate stress, and no sample had high perceived stress.

As per Table 4 the relationship between pre-test scores and demographic factors is shown in the above table. In terms of age groups, the computed Chi-square ( $X^2$ ) value is 7.825, this value was less than the Chi-square ( $X^2$ ) table value of 12.59. As a result, age had no bearing on the samples' overall stress levels. The estimated Chi-square ( $X^2$ ) value for gender is 0.489, which is less than the Chi-square ( $X^2$ ) table value of 5.99. As a result, it was determined that gender had no bearing on

the samples' overall stress levels. The computed Chi-square ( $X^2$ ) value for marital status is 1.550, which is less than the Chi-square ( $X^2$ ) table value of 12.59. As a result, there was no significant correlation between the samples' levels of stress and married status.

As per Table 5 the study compared the stress level ratings from the pre-test to the post-test and the researchers found a significant difference between the mean pre-test score of and the mean post-test score. The mean difference was determined to be 11.7, with the mean pretest score being 26.4 and the mean posttest score being 14.7. The table additionally displays the pre-test score standard deviation of 4.82 and the post-test score standard deviation of 3.04. At the 0.05 level of significance, the tabulated "t" value is 2.0017 and the computed "t" value is 11.23. It demonstrates that there was a substantial difference between the mean post-test and pre-test scores. There was a difference between the tabulated and calculated "t" values. As a result, the research hypothesis was supported and the null hypothesis was rejected consequently, it can be said that the samples' stress levels decreased following the delivery of laughter treatment.

**Table 2: The frequency and percentage distribution of the pre-test results for the elderly population's subjective stress level (n=30)**

Sr. no.	Pre-test score	Frequency	Percentage
1	Low stress	2	6.66
2	Moderate stress	12	40
3	High perceived stress	16	53.33
	Total	30	100.0

**Table 3: The frequency and percentage distribution of post-test scores for elderly people's subjective stress levels (n=30)**

Sr. no.	Post-test score	Frequency	Percentage
1	Low stress	8	26.66
2	Moderate stress	22	73.33
3	High perceived stress	0	0
	Total	30	100.0

## DISCUSSION

In this study, I evaluated the perceived stress levels of senior persons at a few Gujarati old age homes in the Gandhinagar district both before and after they received laughter therapy. The outcomes were such that they might achieve the study's goals. For the data analysis, both descriptive and inferential statistics were used. Before the samples received laughter treatment. Two samples (6.66%) reported low stress, twelve samples (40%) reported moderate stress, and sixteen samples (53.33%) reported high perceived stress during the pre-

**Table 4: Examination and determination of the correlation between pre-test results and demographic factors (association between pre-test stress level score and particular sociodemographic characteristic)**

Sr. no.	Demographic variable	Pre-test score			Total	Chi square/fishers Chi-square	DF	Value table	Significant/not significant
		Low stress	Moderate stress	High perceived stress					
1.	Age in years								
	65-74	2	4	3	9	7.825	6	12.59	No significant
	75-84	0	6	6	14				
85 and above	0	1	6	7					
2.	Gender					0.489	3	5.99	No significant
	Male	1	5	10	16				
	Female	1	6	7	14				
3.	Marital status					1.550	6	12.59	No significant
	Married	0	2	4	6				
	Unmarried	1	2	3	6				
	Widow/widower	1	7	10	18				

\*0.05 level of significance

**Table 5: Pre-test and post-test scores in relation to the samples' stress levels (n=30)**

Sr. no.	Test	Mean	Std. deviation	Mean difference	Df	Table value	Significant/Non significant
1	Pre-test score	26.4	4.82	11.7	11.23	2.0017	Significant
2	Post-test score	14.7	3.04				

test. following the samples' delivery of laughter therapy. 22 (73.33%) samples exhibited mild-to-moderate stress, 8 (26.66%) samples had low stress, and no sample had severe perceived stress during the post-test. The pre-test score did not significantly correlate with any sociodemographic variables.

## CONCLUSION

According to this study, the mean post-test score was considerably less than the mean pre-test score. There was a difference between the tabulated and calculated "t" values. As a result, the research hypothesis was supported and the null hypothesis was rejected. Thus, it can be said that there was a minor decrease in stress among the samples following the delivery of laughter therapy. The outcome showed that laughter therapy was helpful in reducing sample members' stress levels.

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## CONFLICT OF INTEREST

With reference to the study, the authors have disclosed no conflicts of interest.

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## REFERENCES

1. Aldwin CM, Yancura LA. Stress and coping in later life: A contextual perspective. In: Schaie KW, Willis SL, editors. *Handbook of the Psychology of Aging*. 7<sup>th</sup> ed. Cambridge: Academic Press; 2012. p. 191-206.
2. Martin RA. Humor, laughter, and physical health: Methodological issues and research findings. *Psychol Bull* 2001;127:504-19.
3. Hwang E. The effects of social support and perceived stress on depressive symptoms among older adults in Korea: A cross-sectional study. *Int J Environ Res Public Health* 2019;16:3033.
4. McEwen BS, Sapolsky RM. Stress and cognitive function. *Curr Opin Neurobiol* 1995;5:205-16.
5. Bennett MP, Lengacher C. Humor and Laughter May Influence Health: III. Laughter and Health Outcomes. *Evid Based Complement Alternat Med* 2008;5:37-40.
6. Gallagher-Thompson D, Steffen AM. Comparative effects of cognitive-behavioral and brief psychodynamic psychotherapies for depressed family caregivers. *J Consult Clin Psychol* 1994;62:543-9.
7. Berk LS, Tan SA, Fry WF, Napier BJ, Lee JW, Hubbard RW, Lewis JE, Eby WC. Neuroendocrine and stress hormone changes during mirthful laughter. *Am J Med Sci* 1989;298:390-6.
8. Mora- Ripoll R. The therapeutic value of laughter in medicine. *Alter the Health Med* 2010;16:56-64.
9. Mora Ripol R. Laughter medicine and therapy: A complementary/alternative approach in health and patient care. *Med Clin (Barc)* 2011;136:111-5.
10. Available from: <https://www.thehindu.com/life-and-style/fitness/dramadan-kataria-founder-of-laughter-yoga-on-why-we-should-laugh-every-day/article29876254.ece> [Last accessed on 2020 Nov 20].
11. Chaturvedi R. A study to assess the effectiveness of laughter therapy on psychological and physical well-being among elderly in selected old age homes of district Gurdaspur. *J Emerg Technol Innov Res* 2023;10:e445-58.

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