



# Title: “Effectiveness Of Music Therapy On Level Of Depression among Elderly People”

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**Abstract:** An experimental study was conducted to assess the effectiveness of music therapy on the level of depression among elderly people in selected old age homes, in Gandhinagar district, Gujarat. The study aimed to assess the level of depression before and after music therapy among elderly people in selected old age homes and to evaluate the effectiveness of music therapy on the level of depression among elderly people in selected old age homes, in Gandhinagar district (Gujarat). Data was collected from thirty (30) samples that were selected purposively using the Geriatric Depression Scale of elderly people. One group pre-test and post-test design was adopted. The comparison between Pre-test and Post-test depression scores obtained by the Geriatric Depression Scale of elderly people. The mean pre-test score was (7.5±1.73) higher than and the mean post-test score (5.5±1.93) with a mean difference of 2, which was reflected by the calculated “t” value 9.06 [2.04, df (28), p<0.05]. This indicates that the difference obtained in the mean pre-test and post-test depression scores was a real difference. It was statistically proven and it revealed that administration of music therapy on elderly depressive peoples significantly decreases the depression.

**Keywords:** Effectiveness, depression, elderly, music therapy, old age home

## **Introduction**

Aging is an integral, natural part of life and it is a normal process of time-related change, that begins with birth and continues throughout life. Old age is a phase of the life cycle characterized by developmental issues. many of which are concerned with loss of physical ability and mental acuity. Successful aging is reflected in the ability of older people to adapt to physical, social, and emotional losses and to achieve contentment, security, and life satisfaction. Because changes in life patterns are inevitable over a lifetime, older people need resiliency and coping skills when confronting stress and change. <sup>1</sup>

Failure to adapt to aging can lead to frustration, loneliness, bitterness, hopelessness, helplessness, and insecurity which makes older people prone to later life depression. The World Health Organization (WHO) estimates that 121 million people worldwide suffer from depression. In an analysis of studies worldwide, the average prevalence was 13.3% for all depression symptoms (Major and milder depression) with the rate of major depression average 1.8%. At present total number of depressed elderly in India is about 9 Crores. Older women are at high risk for depression. Ruegg. Et. al. (1998) reports that 20% of the female population over 60 years of age have had an episode of depression. <sup>2</sup>

The World Health Organization (WHO) (1995) launched a program on “Age and Health of Elderly” The need of the program is healthy aging rather than the elderly living long. It is an achievement that more people will reach old age in good health and capable of contributing to society intellectually, spiritually, and physically (Hales 2002).

<sup>3</sup>

In 1999 Barua A, Kar N. Screening for depression in elderly Indian population. Indian J Psychiatry [serial online] 2010, suggesting the world population of 60 years and above was 56 million (6.8%). In 1999, it increased to 70 million, and expecting 177 million by 2025. The growth rate of the elderly population (37.3%) is twice that of the general population (16.8%). One out of seven elderly in the world is an Indian. The average

expectation of life from 60 years in 1991 is expected to reach 70 years by the year 2025. Elderly population statistics in India was 7.7 crores as per census 2001 and it is projected to be around 9.5 crores in 2010. In the world, there were around 354 old age homes in 1997. By 2001 the number of old age homes had grown to 969. The World prevalence rate of depression among older is 10.3%. The prevalence rate of depression among the elderly in the Indian population was determined to be 21.9%. Although there was a significant decrease trend in the world prevalence of geriatric depression, it was significantly higher among Indians in recent years than in the rest of the world. <sup>4</sup>

Music therapy is one of the mind and body relaxation techniques where a client listens to music which affects his mood and feelings. Music is known to affect both the mood of the client as well as his physiological functions. Music has the power to access deep emotions. Music of choice has been a great healer. Healing is concerned with bringing the body into a natural state of balance. Shakespeare once wrote, "If the music is the food of love, play on..." Hence, music therapy makes a person especially the elderly residing in old age homes and community settings healthy, physically as well as mentally. <sup>5</sup>

As the elderly encounter several stressors throughout their life, it makes them vulnerable to various mental health issues. As aging brings many precipitating factors like the decline in physical, social, and psychological functioning, they become dependent on caregivers or family members physically and emotionally. Especially the elderly residing in old age homes go through such situations thereby the investigator conducted the study to point out such significant issues of the geriatric population.

Research Through Innovation

## **Statement of the problem**

**“A Study To Assess The Effectiveness Of Music Therapy On Level Of Depression Among Elderly People In Selected Old Age Homes, Gandhinagar District, Gujarat”**

## **Objectives of the study**

- 1. To assess the level of depression before music therapy among elderly people in selected old age homes, in Gandhinagar district (Gujarat).**
- 2. To assess the level of depression after music therapy among elderly people in selected old age homes, in Gandhinagar district (Gujarat).**
- 3. To evaluate the effectiveness of music therapy on the level of depression among elderly people in selected old age homes, in Gandhinagar district (Gujarat).**

## **Hypothesis**

**Hypothesis was formulated to assess effectiveness of administration of music therapy, which are as follows-**

**Research Hypthesis  $H_1$ : There is a significant relationship between administration of music therapy with the mean post-test score at 0.05 level of significance.**

**Null Hypothesis  $H_0$ : There is no significant relationship between administration of music therapy with the mean post-test score at 0.05 level of significance.**

## **Materials and Method**

**An pre-experimental one group pre-test and post-test study was conducted to assess the effectiveness of music therapy on the level of depression among the elderly people in selected old age homes, in Gandhinagar district, Gujarat. Data was collected from thirty (30) samples who fulfilled the inclusion and exclusion criteria (>60 years). Subjects were selected using non-probability purposive sampling technique. Data was collected using the Geriatric depression Scale Short Form (GDS-SF) of elderly people. The comparison between Pre-test and Post-test depression scores obtained by the**



standardized test Geriatric Depression Scale Short form (GDS-SF) (15 items yes/no scale) of elderly people. After revising the score for positive items, each item that contained a yes answer received 1 point. Possible scores ranged from 0 to 15. Researchers suggested using 05 as the cut-off point for a depressive tendency (sensitivity 96.3%, specificity 87.5%). The GDS-SF demonstrates high internal consistency and also test-retest reliability. Formal permission was obtained from managers of different old age homes of Gandhinagar district, for the data collection. All the formalities related to data collection were finished before the 21-day scheduled plan for data collection in January. Self-introduction was given to participants in old age homes an information sheet was provided, and rapport was established during visits. After explaining the purpose of the study, Informed Consent was taken from the subjects. Confidentiality of the information was assured. A separate code number was used for each subject. Participants were assessed depression scores using the Geriatric Depression Scale short form (GDS\_SF), and the persons were provided with 21 days of music therapy. Post-test was taken after seven days.

## Results

Findings related to the distribution of participants based on demographic variables  
n=30

Table 1 Distribution of population according to demographic variables

Demographic variables	Frequency	Percentage
Age in years		
60-62	2	6.67%
63-65	12	40%
66-68	10	33.33%
Above 69	6	20%
Gender		
Female	13	43.33%
Male	17	56.67%

Education		
No formal education	-	00%
Primary education	2	6.67%
High school	10	33.33%
Higher Secondary	13	43.33%
e. Graduate	5	16.67%

Data from Table 1 showing maximum (40%) subjects belonged to 63-65 years of age. The majority (56.67%) of participants were male. Maximum (43.33%) subjects were educated up to high school.

### Findings related to Level of depression among elderly

Table 2 Distribution pre-test and post-test scores according to Level of depression among elderly

n=30

Group	Normal (0-4)		Mild (5-8)		Moderate (8-11)		Severe (12-15)	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Pre-test	0	00%	20	66.67%	08	26.67%	02	6.67%
Post-test	11	36.67%	17	56.67%	02	6.67%	0	00%

Data presented in Table 2 revealed that a maximum (56.67%) of respondents had decreased levels of depression.

**Table 3 Analysis and interpretation of data related to comparison of sample before and after exposure to music therapy by Geriatric depression scale**

**Research Hypthesis H<sub>1</sub>: There is a significant relationship between administration of music therapy with the mean post-test score at 0.05 level of significance.**

**Null Hypothesis H<sub>0</sub>: There is no significant relationship between administration of music therapy with the mean post-test score at 0.05 level of significance.**

n=30

Comparison of variables	Mean	Variance	Mean Difference	df	Calculated t value	Tabulated Value
Pre-test	7.5	3.84	02	29	-9.06	2.04
Post-test	5.53	3.01				

Table 3 Shows, the comparison between the Pre-Test and Post-Test depression scores obtained by the Geriatric Depression Scale of elderly people. The mean Pre-test score was 7.5 and the mean post-test score was 5.5 with a mean difference of 02. The table Standard Deviation of the Pre-test score was 1.73 and the Standard deviation of the post-test score was 1.95. The calculated "t" was (-9.06) and the tabulated "t" was 2.04 at a 0.05 level of significance.

It reveals, that the mean post-test depression score was significantly lower than the mean Pre-test depression score. This indicates that the difference obtained in the mean pre-test and post-test depression scores was a real difference and not by chance. Therefore research hypothesis was accepted and null hypothesis was rejected.

**Summary:**

This chapter dealt with the analysis and interpretation of findings of the data collection from 30 participants in old age homes. It reflects that there is a reduced level of depression among subjects after exposure to music therapy.

## Discussion

Discussion related to the effectiveness of music therapy by the difference between pre-test and post-test levels of depression

A study conducted by Tang Q., Huang Z., Zhou H, and Ye P., to assess the effects of music therapy on depression by meta-analysis revealed that music medicine exhibited a stronger effect in reducing depressive symptoms (SMD = -1.33; 95% CI = -1.96 to -0.70;  $P < 0.001$ ). Among the specific music therapy methods, recreative music therapy, guided imagery and music, music-assisted relaxation, music and imagery, improvisational music therapy, and music and discussion exhibited a different effect respectively. Music therapy and music medicine both exhibited stronger effects of short and medium length compared to long intervention periods. <sup>6</sup>

Another study conducted by Aalbers et al. revealed that music therapy added to TAU provides short-term beneficial effects for people with depression if compared to TAU alone. <sup>7</sup>

Another study done by Kamioka H., Tsutani K., Yamada M., Park H., Okuizumi H., Tsuruoka K., Honda T., et. al. conducted a study a summary of systematic reviews based on randomized controlled trials of music interventions which revealed that Music therapy treatment improved global and social functioning in schizophrenia and/or serious mental disorders, Parkinson's disease, depressive symptoms, as well as sleep quality. <sup>8</sup>

Similar experimental study conducted November 2008 to December 2009 by Tai S Y., Wang L C., Yang Y H, on the effects of musical intervention on the cognitive and depression status among the elderly residents in Taiwan to identify the effect of music intervention on cognitive function and depression status of residents in senior citizen apartments based on the existing evidence regarding music therapy. The intervention involved playing of Buddhist hymns. The effects were evaluated based on the measurements regarding cognitive function and depression level was assessed using the Mini-Mental State Examination (MMSE) and the Geriatric Depression Scale-short form (GDS-SF) at the baseline, 1 month, and 4 months consecutively. Initially and the



1-month of therapy, MMSE and GDS-SF scores did not differ between the experimental and control groups. After 4-months MMSE score significantly declined compared to the initial level in the comparison group, whereas no significant change was observed in the experimental group. After 4-months GDS-SF score significantly improved in experimental and control groups compared to the initial level. Therefore it can be concluded that music intervention postpones cognitive decline in healthy residents preferring Buddhist hymns in the subjects in 4 months follow-up, and intense contact with participants may improve their mood. <sup>9</sup>

The present study also reported revealed that the mean pre-test depression score was (7.5±1.73) higher than and the mean post-test depression score (5.5±1.93) with a mean difference of 2, which was reflected by the calculated “t” value of 9.06 [2.04, df (28), p<0.05] It is indicating that the mean difference was a true difference and not by chance. Hence, the null hypothesis was rejected and the research hypothesis was accepted. So, it could be concluded that music therapy was effective in reducing depression among the elderly.

## Conclusion

The study showed significant changes in the level of depression after exposure to 21 days of music therapy. The study emphasizes on mental health of the elderly which can significantly reduce mental health issues among the elderly thereby reducing the morbidity and mortality associated with it.

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