



OPEN ACCESS

Key Words

Depression, anxiety, music therapy, elderly people, old age

Corresponding Author

Ulka Balu Wadagale,
Senior Nurse Executive Sir. H. N.
Reliance Foundation Hospital,
Mumbai, India

Author Designation

¹Professor

²Senior Nurse Executive

Received: 01 October 2023

Accepted: 15 October 2023

Published: 25 October 2023

Citation: Kanwaljeet Kaur and Ulka Balu Wadagale, 2023. Assess the Effectiveness of Music Therapy on Depression and Anxiety Among Elderly People in Selected Old Age Homes of The City. Res. J. Med. Sci., 17: 151-155, doi: 10.59218/makrjms.2023.12.151.155

Copy Right: MAK HILL Publication

Assess the Effectiveness of Music Therapy on Depression and Anxiety Among Elderly People in Selected Old Age Homes of The City

¹Kanwaljeet Kaur and ²Ulka Balu Wadagale

¹Department of Psychiatric Nursing, MGM Mother Teresa college of Nursing, Aurangabad, India

²Sir. H. N. Reliance Foundation Hospital, Mumbai, India

ABSTRACT

A person must deal with issues impacting their mental and social welfare in addition to the physical ageing process throughout this time of transition known as old age. Various illnesses-related disabilities, loneliness, inadequate family support, limited personal autonomy and financial dependence are significant contributing factors to the increased occurrence of mental and behavioural disorders such as anxiety and depression. According to research, listening to music can aid in emotional expression, stress management, cognitive enhancement, physical rehabilitation and improved communication. Seniors who receive music therapy benefit from reduced stress and cleansing. It makes children feel accomplished and upbeat while also assisting with relaxation and social skill development. The research was conducted at the selected old age homes of the city. The population for this study was 120 elderly people above 60 years of age group. Written consent was obtained. The instrument was given to subjects in the experimental and control groups for a pre-test during the course of a 21-day pilot research. The researcher provided 20 minutes of music therapy to the experimental group every 21 days. Both the experimental and control groups conducted a post-test on the twenty-first day. The instrument demonstrated feasibility and dependability when utilised as the Standardised Hamilton Depression and Anxiety Scales. The gathered information was organised and collated to show the study's conclusions. A maximum of 18 samples (30%) in the experimental group belonged to the age group of 71-75, whereas 29 samples (48.3%) in the control group belonged to the age group of 75 years and above. Four people (6.6%) in the experimental group had extremely severe depression. Eleven people or 18.3%, in the control group had really severe depression. Compared to the mean pre-test depression score of 18.65, the experimental group's mean post-test depression score was lower, at 10.03. Compared to the mean pre-test anxiety score of 21.23, the experimental group's mean post-test anxiety score was lower at 12.90. Music therapy is effective in reducing level of depression and anxiety which is denoted by significant level of Depression and Anxiety.

INTRODUCTION

One significant factor influencing mental health is age. A person must deal with issues impacting their mental and social welfare in addition to the physical ageing process throughout this time of transition known as old age. The total prevalence of mental and behavioural disorders tends to rise with age due to a combination of factors including cerebral disease, declining physical health and normal ageing of the brain^[1]. Other significant contributing causes to the increased prevalence of mental and behavioural disorders include financial dependency, loneliness, lack of family support and disability resulting from various illnesses. Depression is the mental illness that affects seniors the most out of all of them. Depression makes a person more dependent on other people and lowers their quality of life. Elderly people may experience major clinical and social repercussions from depression if it is not treated^[2]. Pharmacological treatments for depression often involve antidepressants, psychotherapy a mix of the two. It has also been discovered that a range of talking therapies are beneficial for treating depression. One of the most prevalent causes of using complementary and alternative therapy is depression. The causes of this are multifaceted and differ depending on the patient population. There are various alternatives and complementary therapist which include play therapy, Yoga therapy, muscle relaxation technique, acupuncture and music therapy.

According to one definition, music therapy is an interpersonal process where a therapist uses all parts of music to assist patients in maintaining, regaining or improving their health. Globally, methods to music therapy have evolved from a variety of backgrounds, including educational, behavioural, psychoanalytic and humanistic therapeutic frameworks. Although there is a wide range of techniques employed in music therapy, they can be essentially divided into two categories. "Active" where individuals write, improvise or re-create music and "Receptive" where they listen to music^[3]. Anxiety symptoms in older persons sometimes manifest as physical issues such as headaches, gastrointestinal pain and exhaustion. As was already said, anxiety disorders frequently coexist with other conditions that cause symptoms that are comparable to anxiety. These problems present major obstacles in terms of diagnosis and detection. Perceived anguish and functional capacity are the main differences between anxiety disorders and everyday worry^[4]. Even though anxiety is widespread and can have detrimental effects, older persons who experience anxiety frequently do not obtain the proper care^[5]. A lifelong perspective on risk variables that could aid in the explanation of why depression strikes older adults. In later life, biological factors have a major role. Age-related disorders and typical aging-related

changes to the brain and cardiovascular system seem to make people more susceptible to depression.

It has been demonstrated that music therapy is an efficient kind of treatment for a wide range of conditions. Throughout history, it has been utilised as a medicinal and therapeutic healing agent. In the 18th century, music therapy finally gained recognition as a legitimate profession. According to research, listening to music can aid in emotional expression, stress management, cognitive enhancement, physical rehabilitation and improved communication. With the help of cross-cultural influences, Ever-evolving musical genres and technology advancements, this type of therapy will always be cutting edge and relevant^[6].

The fact that there is still a great deal of theorising, Debate and study to be done in this field, however, adds to its attraction. Therefore, the aforementioned study was carried out to evaluate the impact of music therapy on anxiety and depression in senior citizens residing in particular city retirement homes.

MATERIALS AND METHODS

Study place: Over the course of 21 days the study was carried out at the St. Mary's Home for the Aged in Cuddalore, Tamil Nadu

Study design: Nearly Experiential Design of non-equivalent control groups

Inclusion criteria: Elderly people residing in old age home, willing to participate and who can understand Marathi and English and respond verbally

Exclusion criteria: Elderly people who are critically physical ill, who have difficulty in hearing, cognitive disability and unwilling to participate

Sample size: 120 samples total, of which 60 belonged to the experimental group and 60 to the control group.

Data analysis: Using SPSS 21 version, the gathered data was organised and tabulated to show the study's conclusions. There was use of both inferential and descriptive statistics. "Paired t-test" and "unpaired t-test" was used to find out the difference between pre-test and post-test of the group

Ethical consideration: The old age home's administration authority granted all the required approvals. The participants gave their written agreement in their native tongue

The 21-day data gathering period was observed. Non-probability convenient sampling was utilised to choose the samples and a quasi-experimental (pre-test, post-test, control group) design was

employed. The elderly individuals were separated into two groups: the experimental group and the control group. On the first day the data was gathered as a pre-test for both groups. Data collection was place early in the morning. The elderly were informed about the nature and goal of the study. Consent in writing was acquired. For 21 days, an experimental group of senior persons received 20 min of music therapy in the early morning, whereas the elderly people in the control group had no intervention. On the twenty-first day, the experimental group and the control group took the post-test. The instrument was practicable and dependable for use as a standardised Hamilton depression and anxiety scale by employing test-retest methodology.

Modified Hamilton Depression Rating Scale (HAM-D): consist of 17 question to assess the level of depression

Interpretation:

- 0-7 = Normal
- 8-13 = Mild depression
- 14-18 = Moderate depression
- 19-22 = Severe depression
- >23 = Very severe depression

Modified hamilton anxiety rating scale (HAM-A): consists of 14 questions to assess the level of anxiety among elderly people

Interpretation: 0 = Not present, 1 = Mild, 2 = Moderate, 3 = Severe, 4 = Very severe

RESULTS

Of the samples in the experimental group, the maximum (18%) belonged to the age group of 71-75, while the minimum (16.7%) belonged to the age group of 66-70. The largest number of samples in the control group-29, 48.3%-belonged to the age group over 75, while the least number-eight, 13.3%-belonged to the age group between 60 and 65.

Regarding gender distribution, the samples were equal in size i.e 30 (50%) in male and 30 (50%) in female under both the experimental and control group.

Under experimental group, the variable regarding number of children in family, maximum of the samples 31 (51.7%) and minimum 7 (11.7) were having 3 children. Where as in control group, maximum of the samples 23 (38.3%) and minimum 6 (10%) were having 3 children.

In experimental group maximum of the samples 38 (63.3%) were having moderate depression, 18 (30%) were having severe depression and 4 (6.6%) were having very severe depression.

In Control group 25 (41.6%) were having severe depression, 24 (40%) were in moderate depression and

11 (18.3%) were very severe depression. In both the groups none of the samples were under the category of normal and mild depression.

In experimental group majority of the samples 43 (71.66%) were having mild depression, 2 (3.33%) were having Moderate depression.

In Control group 25 (41.6%) were having severe depression, 24 (40%) were in moderate depression and 11 (18.3%) were very severe depression.

In both the groups none of the samples were under the category of normal and mild depression.

In experimental group, majority of the sample 46 (76.6%) were having moderate anxiety, 11 (18.3%) were having severe anxiety and 3 (5%) were having mild anxiety. Where as in control group 36 (60%) were having moderate anxiety, 14 (23.3%) were having severe anxiety and 10 (16.6%) were having mild anxiety.

The computed "t" value for the pre-test experimental and control groups in the above table was 3.34 ($p < 0.05$). It indicates that a statistically significant was present.

Compared to the control group, which had a mean post-test depression score of 20.85, the experimental group's mean score was 10.03. At the $p < 0.05$ level, the obtained "t" value of 15.75 was highly significant. This demonstrates that the mean post-test score has significantly decreased depression among senior citizens residing in assisted living facilities as a result of the impact of music therapy. It also provides evidence in favour of accepting the research hypothesis and rejecting the null hypothesis.

The computed "t" value in the pre-test experimental and control groups, as shown in the above table was 0.23, which was not statistically significant.

The experimental group's mean post-test anxiety score was 12.90, whereas the control group's mean score was 21.08. At the $p < 0.05$ level, the obtained "t" value of 16.64 was highly significant. This demonstrates how the mean post-test score has significantly decreased anxiety among senior citizens residing in assisted living facilities as a result of the impact of music therapy. It also provides evidence in favour of accepting the research hypothesis and rejecting the null hypothesis.

DISCUSSIONS

The investigator now has a clear grasp of the study that was conducted thanks to the data analysis. The study's objectives informed the interpretation that was made from its findings. Based on statistical analysis, it was discovered that older adults experience anxiety and depression before tests and that music therapy can help lower these symptoms.

The Geriatric Depression Scale score and loneliness among in stitutionalised older individuals

Table 1: Frequency and percentage distribution of respondents by age, gender, No. of children in family and residence in experimental and control group

Demographic variables	Experimental group		Control group	
	F	%	F	%
Age (year)				
60-65	10	16.7	8	13.3
66-70	16	26.7	14	23.3
71-75	18	30.0	9	15.0
Above 75	16	26.7	29	48.3
Gender				
Male	30	50.0	30	50.0
Female	30	50.0	30	50.0
No of Children in Family				
0	31	51.7	23	38.3
1	12	20.0	20	33.3
2	10	16.7	11	18.3
3	7	11.7	6	10.0
Resident				
Urban	34	56.7	34	56.7
Rural	26	43.3	26	43.3

Table 2: Pre-test frequency and percentage distribution of level of depression among elderly N = 120

Level of depression	Score	Experimental group		Control group	
		Frequency	Percentage	Frequency	Percentage
Normal	0-7	0	0	0	0
Mild depression	8-13	0	0	0	0
Moderate depression	14-18	38	63.33	24	40
Severe depression	19-22	18	30	25	41.6
Very severe depression	>23	4	6.6	11	18.3

Table 3: Post-test frequency and percentage distribution of level of depression among elderly N = 120

Level of depression	Score	Experimental group		Control group	
		Frequency	Percentage	Frequency	Percentage
Normal	0-7	15	25	0	0
Mild depression	8-13	43	71.66	0	0
Moderate depression	14-18	2	3.33	25	40
Severe depression	19-22	0	0	24	41.66
Very severe depression	>23	0	0	11	18.33

Table 4: Pre-test Frequency and percentage distribution of level of anxiety among elderly N = 120

Level of anxiety	Score	Experimental group		Control group	
		Frequency	Percentage	Frequency	Percentage
Mild anxiety	<17	3	5	10	16.6
Moderate anxiety	18-24	46	76.6	36	60
Severe anxiety	25-30	11	18.3	14	23.3

Table 5: Post-test Frequency and percentage distribution of level of anxiety among elderly N = 120

Level of anxiety	Score	Experimental group		Control group	
		Frequency	Percentage	Frequency	Percentage
Mild anxiety	<17	55	91.66	11	18.33
Moderate anxiety	18-24	5	8.33	35	58.33
Severe anxiety	25-30	0	0	14	23.33

Table 6: Effectiveness of music therapy on depression among experimental and control group

Group	Observation	Mean	SD	Un paired t-test	p-value	Interference
Experimental	Pre-test	18.65	2.52	3.34	0.001	Significant
Control	Pre-test	20.85	4.43			
Experimental	Post-test	10.03	2.93	16.30	0.0001	Significant
Control	Post-test	20.78	4.18			

Table 7: Effectiveness of music therapy on anxiety among experimental and control group

Group	Observation	Mean	SD	Un paired t-test	p-value	Interference
Experimental	Pre-test	21.23	3.31	0.23	0.81	Not significant
Control	Pre-test	21.08	3.66			
Experimental	Post-test	12.90	1.07	16.0	0.000	Significant
Control	Post-test	20.83	3.54			

with mild depression in Tamilnadu were improved by group singing in a study on music therapy. The purpose of this study was to assess how group music therapy, specifically group singing guided by a music therapist, affected the depressive symptoms and loneliness experienced by institutionalised older adults with mild

depression. In St. Mary's Home for the Elderly in Cuddalore, Tamil Nadu, A randomised control trial was used to carry out the study design. This study, which was a randomised control trial, included 80 participants in total, All of whom were older than 60. For three weeks, the experiment group (n = 40)

participated in daily group singing led by a music therapist as a kind of music therapy. The 40-person control group did not get any particular assistance. Both group's baseline and weekly scores on the UCLA Loneliness Scale and the Geriatric Depression Scale-Short Form (GDS-SF) were documented.

Measures of Central Tendency, Mann-Whitney U-test and Wilcoxon W value were used for statistical analysis. Outcome was s After three weeks, the experiment group's scores showed a statistically significant ($p < 0.05$) improvement when compared to the control group. When comparing the experiment group's results at the end of three weeks to the baseline, there was a statistically significant ($p < 0.001$) improvement in both categories compared to the control group. There were no negative effects noted^[7].

CONCLUSION

The primary finding of this study is that music therapy is useful in lowering anxiety and depressive symptoms. The chosen participants grew accustomed to one another, felt at ease and voiced satisfaction.

REFERENCES

1. Grover, S. and N. Malhotra, 2016. Depression in elderly: A review of Indian research. J. Geriatric Mental Health, 2: 171-243
2. Blanchard, M.R., A. Waterreus and A.H. Mann, 1994. The nature of depression among older people in inner London, and the contact with primary care. Br. J. Psychiatry, 164: 396-402.
3. Maratos, A., C. Gold, X. Wang and M. Crawford, 2008. Music therapy for depression. Cochrane. Database. Syst. Rev., Vol. 23 .10.1002/14651858.cd004517.pub2
4. Friedman, M.B., 2013. Anxiety disorders in older adults. social. work. today., Vol. 13.
5. Park, M. and J. Unützer, 2011. Geriatric depression in primary care. Psychiatric Clin. North Am., 34: 469-487
6. Arun, R., 2011. effectiveness of music therapy on sleep quality among elderly people. available from.
7. Mathew, D., S. Sundar, E. Subramaniam, P.M. Parmar, 2017. Music therapy as group singing improves geriatric depression Scale score and loneliness in institutionalized geriatric adults with mild depression: A randomized controlled study. Int. J. Educ. Psychol. Res., 3: 6-10.