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Research Article

A study on the effectiveness of music therapy on depression among elderly people at selected old age home: An epidemiological study on public health perspective in Hyderabad

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ABSTRACT

Background: Aging is a worldwide issue in our society, Elderly people living in old age homes may suffer from sadness, pain, and isolation. Many of them may experience seasonal affective disorder (SAD). SAD is a common condition where individuals present with depressed mood, loss of interest or pleasure, feelings of guilt, disturbed sleep and/or appetite, low energy and poor concentration. Music has been used more and more frequently and consciously as a mean of care to reduce or stabilize symptoms and/or complications arising therefrom**. Method:** The study employs the pre-test and post-test for assessing the level of depression among the elderly persons in the old age homes, and with respect to the demographic variables which are used for assessing the levels of depression among both males and females from the study. **Results:** Findings clearly showed that there was mild level of depression among elderly people before the intervention and the level of depression was decrease after the intervention (music therapy. The study finding show that, the mean post - level of depression scores (1.53) was lower than the mean pre -test score (2.03). Overall 63.3% of samples 38 have mild depression and 20% of the samples 12 have severe depression and remaining are normal in pre-test. **Conclusion:** The study findings were supported by a pre -experimental study, conducted to investigate the effective of music therapy on depression among elderly people staying in the old age home.

Keywords: music therapy, depression, elder people, India

INTRODUCTION

Aging is a worldwide issue in our society, Elderly people living in old age homes may suffer from sadness, pain, and isolation. Many of them may experience seasonal affective disorder (SAD). SAD is a common condition where individuals present with depressed mood, loss of interest or pleasure, feelings of guilt, disturbed sleep and/or appetite, low energy and poor concentration [1]. Old age Home care has grown into a vital source of health care, especially for older adults, who represent 72% of recipients. Little is known about the mental health needs of these patients [2]. In elderly people, depression mainly affects those with chronic medical illnesses and cognitive impairment, causes suffering, family disruption, and disability, worsens the outcomes of many medical illnesses, and increases mortality. Ageing-related and disease-related processes, including arteriosclerosis and inflammatory, endocrine, and immune changes compromise the integrity of front

striatal pathways, the amygdala, and the hippocampus, and increase vulnerability to depression [3].

Aging is a universal phenomenon. India is the second largest country in the world, with 72 million elderly persons above 60 years of age as of 2001.From 1990 to 2025, the elderly population in Asia will rise from 50 per cent of the world's elderly to 58 per cent [4]. Psychosocial adversity economic impoverishment, disability, isolation, relocation, caregiving, and bereavement contributes to physiological changes, further increasing susceptibility to depression or triggering depression in already vulnerable elderly individuals. Treatment with antidepressants is well tolerated by elderly people and is, overall, as effective as in young adults. Evidence-based guidelines for prevention of new episodes of depression are available as are care-delivery systems that increase the likelihood of diagnosis, and improve the treatment of, late-life depression [3]. In old age, depressive syndromes often

affects people with chronic medical illnesses, cognitive impairment, or disability. Beyond personal suffering and family disruption, depression worsens the outcomes of many medical disorders and promotes disability [3] [6]. For several decades, music has been used more and more frequently and consciously as a mean of care to reduce or stabilize symptoms and/or complications arising therefrom [5] [7]. This has been the case with several diseases, including chronic and degenerative ones (in psychiatry, child neuropsychiatry, neurology, oncology, palliative care, etc.). Symptoms or syndromes of depression are often present in individuals with dementia. The point prevalence of major depression is about 17% in patients with Alzheimer's disease20 and is even higher in those with subcortical dementias [3]. Numerous studies have documented a high prevalence of depressed mood and other depressive symptoms in elderly Persons living in the community (Blazer, Hughes, &George, 1987).

Depression is also associated with increased medical morbidity and a two-to fourfold increase in mortality in older medical patients [9]. Music has been proven to be a valuable a tool for the understanding of human cognition, human emotion, and their underlying brain mechanisms. Music is part of the human nature. It appears that throughout human history, in every human culture, people have played and enjoyed music [10]. Moreover, musical communication in early childhood (such as parental singing) plays a major role in the emotional, presumably also in the cognitive and social development of children. Music is known to reduce pain, anxiety and fear in several stressful conditions in both males and females. Further, listening to preferred music enhances the endurance during running performance of women rather than listening to non-preferred music [11]. Indeed, music also gives plea-sure, promotes well-being, facilitates the expression and regulation of emotions, and improves communication and relation-ships between individuals [7].

The basis underlying the therapeutic potential of music are to be considered in relation to the extensive action which music itself exerts on the brain at the cortical level but also at the limbic and paralimbic ones. Although progress has been made in characterising the presentation of late-life depression and in improving its treatment, it continues to have detrimental consequences [3]. Music therapy has been recognized as an effective method in helping the elder-ly improve both their physical and mental health [1].

Researchers note that music therapy can have a positive influence on the regions of the brain responsible for managing anxiety and stress. In addition, it has been found that music therapy can relieve stress experienced by elderly people who suffer from neurological disorders. Many clinicians have adapted and employed music therapy with their clients for the last 20years [1].

The prevalence of major depression ranges from 0.9% to 9.4% in private households, from 14% to 42% in institutional living, and from 1% to 16% among elderly living in private households or in institutions; and clinically relevant depressive symptom cases in similar settings vary between 7.2% and 49% [12]. The positive effects of music for human well-being and social bonding have long been acknowledged by scholars, particularly by ethnomusicologists and anthropologists [13].

There are some scientific references that music therapy on palliative stations and hospices can give comfort in the last days, can improve the quality of life, and reduce the emotional strain (e.g. depression, anxiety, pain) of care givers and the medical professionals [14]. Major depressive disorder (MDD) is associated with a profound disturbance of emotional experiences. Recent studies revealed increased limbic activity in response to emotional information processing and decreased prefrontal activity in response to cognitive tasks in patients during an acute major depressive episode [15].

Researchers in the area of music and health share, or often speak of sharing, a common commitment to the idea that music ''helps'' [16]. The increasing burden of major depressive disorder makes the search for an extended understanding of aetiology, and for the development of additional treatments highly significant. Biological factors may be useful biomarkers for treatment with physical activity (PA), and neurobiological effects of PA may herald new therapeutic development in the future [17]. Depression also has been associated with problems with and disruptions of social interactions and relationships. These can result in an erosion of support provided by spouse and family, work, or community and religious organizations [18].

Music and medicine have been closely associated for centuries. For primitive societies music played a significant role in the priest-practitioner's powers.

Objectives:

- ❖ To assess the levels of depression among elderly people at selected old age home
- ❖ To develop and implement music therapy programme for elderly people with depression at selected old age home.
- ❖ To assess the effectiveness of music therapy on depression among elderly people in comparison to pre and post assessment scales for depression.
- ❖ To find out the association between effectiveness of music therapy on elderly people with selected demographic variables.

Study design and study setting:

Since the primary objective of the study is to assess depression levels in elderly persons who are residing at old age homes with music therapy. The study employs methods of pre and post-test analysis of music therapy. In selected old age homes in Hyderabad Telangana,

Selection of sample:

The sample size for the current study is 60 subjects from the selected old age homes in Hyderabad, Telangana, and the samples are recruited with systematic random sampling design. Elderly who are aged 60 years and above were recruited into the study.

Inclusive criteria:

- Subjects who are above 60 years old.
- Subjects who are willing to participate in the study

Exclusion Criteria:

- Subjects with gross physical, mental illnesses.
- Subjects who have hearing impairment and don't use hearing aids.

Ethical Approval: The Ethical approval for the study was obtained from the Institutional Review board (IRB) of School of Medical Sciences; University of Hyderabad. The participants were explained about the study in the language which they were able to understand (Telugu) Informed consent was obtained from them prior to data collection.

Pilot study:

Initially a pilot study was conducted taking 10% population of the sample size i.e. 6 subjects in gold age old age home, Nagole (branch), Hyderabad.

A pre-test was done by using the geriatric depression scales-long form(GDS) and found 2 people normal and 3 mild depressive and 1 severe depressive cases and later music therapy was given to them for 1 week and post-test was done in which 4 subjects found normal and 1 mild depressive and 1 with severe depression. Based on the results of pilot study the actual study was planned and designed in gold age old age home, Dilsukhnagar, Hyderabad. The study was conducted on 60sample in three phases: 1.pre-test, 2. music therapy.3.post test

Pre-test:

All the willing 60 subjects were informed and explained completely about the study and inform consent was taken and geriatric depression scales long-form (GDS) for assessing the levels of depression among the population were used. Geriatric depression scale (long form) consists of 30 standardized and validated questions on depression among elderly population. The scores of geriatric depression are rated as followed. (Normal:-0-9), (Mild depression:-10-19,) (Severe depression:-20-30).The results were analysed.

Music therapy:

Music therapy is a research-based practice and profession in which music is used to actively support people as they strive to improve their health, functioning, and wellbeing. Music Therapy is an established health profession in which music is used within a therapeutic relationship to address physical, emotional, cognitive, and social needs of individuals. After assessing the strengths and needs of each client, the qualified music therapist provides the indicated treatment including creating, singing, moving to, and/or listening to music. Through musical involvement in the therapeutic context, clients' abilities are strengthened and transferred to other areas of their lives. Music therapy also provides avenues for communication that can be helpful to those who find it difficult to express themselves in words. Research in music therapy supports its effectiveness in many areas such as: overall physical rehabilitation and facilitating movement, increasing people's motivation to become engaged in their treatment, providing emotional support for clients and their families, and providing an outlet for expression of feelings.

Post-test: Post-test was done after the music therapy of 5 weeks and again geriatric depression scale (GDS) was given and results were analysed.

Comparison of pre and post-test:

Based on gender, 43.3 % elderly women's of sample 26 and 13.33% elderly of samples 8 has severe depression, while 20% of elderly males of samples 12 have mild depression and 6.6% of elderly males of sample 4 have severe depression in pre-test.

In post-test 16.66% of elderly of samples 10 have mild depression and 8.33% of elderly of samples 5 have severe depression and 10% of elderly males of sample 6 has mild depression and 5% elderly males of sample 3 has severe depression and rest others are normal.

Results and Discussion:

Results were analysed by using the SPSS version 21, for comparing the pre-test and post-test and for also assessing the correlation of depression with the selected demographic variables. Regarding the age group 31.66 percent of the sample (19) were in the age group of 60-65 Years, 18.33 percent of the sample (11) were in the age group of 66-70years, 33.33 percent of the sample (20) were in the age group of 71-75 years and 16.66 percent of the sample (16) were in the age group of >75

years. Regarding marital status 3.33percent of the sample (02) were single and 16.66 percent of the samples (10) were married, 80.0 percent of the samples (3) were others (which include widows, divorced, etc.) According to educational status of the sample 46.66 percent of the samples (28) were below illiterates, 30.00 percent of the samples (18) were SSC, 23.33 percent of the samples (14) were graduate, 0 percent of the samples (0) were post-graduation. Among 60 sample, 0 percent of the sample (0) had below 10,000 monthly income,83.33percent of the sample (50) getting 10,001 - 20,000 monthly income ,16.67 percent of the sample (10) getting monthly income 20,001-30,000, 0 percent of the sample (0) getting monthly income above 30,000 before joining in old age home. According to occupation, 16.66 percent of the sample (10) were employed, 0 percent were unemployed, 6.66 percent of the sample (04) were having business, 76.66 percent were none (includes housewife, self-employees.). Regarding type of Family, 53.33 percent of the sample (32) were from nuclear family, 28.3 percent of the sample (17) were from joint family, 16.66 percent of the sample (10) were from extended family, 1.66 percent of the sample (1) were from others.

Based on source of income, 16.66 percent of the sample (10) are pensioners, 0 percent of the sample (0) have business, 83.33 percent of the sample (50) have family support,0 percent of the sample () have none. Among the 60 samples regarding the levels of depression 16.6 percent are normal of the sample (10) and 65 percent had mild depression of the sample 38 and 18 percent of the sample 12 have severe depression. But after the music therapy, 60 percent of the samples 36 are normal, and 28 percent of the sample 17 had mild depression and 11.6 percent of the sample 07 have severe depression. The mean percentage of the pre-test was 2.03 of the sample 60 and the mean percentage of the post - test was 1.53 of the sample 60. The standard deviation of the pre –test was 0.610 of the sample 60 and the standard deviation of the post-test was 0.724 of the sample 60.

These findings clearly showed that there was mild level of depression among elderly people before the intervention and the level of depression was decrease after the intervention (music therapy. The study finding show that, the mean post - level of depression scores (1.53) was lower than the mean pre -test score (2.03) The study findings were supported by a pre - experimental study, conducted to investigate the effective of music therapy on depression among elderly people staying in the old age home. Overall 63.3% of samples 38 have mild depression and 20% of the samples 12 have severe depression and remaining are normal in pre-test. Overall 60% of samples 36 are normal ,26.7% of sample 16 have mild depression and 13.3% of the samples 8 have severe depression and remaining are normal in post- test. In post-test 16.66% of elderly of samples 10 have mild depression and

8.33% of elderly of samples 5 have severe depression and 10% of elderly males of sample 6 has mild depression and 5% elderly males of sample 3 has severe depression and rest others are normal.

The study clearly says that the music therapy plays a crucial role in reducing depression among the elderly persons who are residing at the old age homes.

Table 1: Levels of Depression among Elderly people in Pre-test

Levels of Depression	Frequency	Percent
1-9	10	16.6
10-19	38	63.3
20-30	12	20.0
Total	60	100.0

Overall 63.3% of samples 38 have mild depression and 20% of the samples 12 have severe depression and remaining are normal in pre- test.

Table 2: **Gender Levels of Depression in Pre-Post Test**

Gender	Pre Test			Total
	1-9 normal	10-19 mild depression	20-30 severe depression	
Male	2	12	4	18
Female	8	26	8	42
Total	10	38	12	60

Based on the gender women are prone to depression more than men 26 percent of women are having mild depression and 8 percent have severe depression. And subjects were given music therapy for 5 weeks twice a day for 30 minutes.
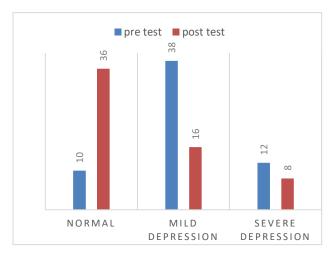
Table 3: Levels of Depression among elderly people in post Test

Levels of Depression	Frequency	Percent
0-9	36	60.0
10-19	16	26.7
20-30	8	13.3
Total	60	100.0

Overall 60% of samples 36 are normal, 26.7% of sample 16 have mild depression and 13.3% of the samples 8
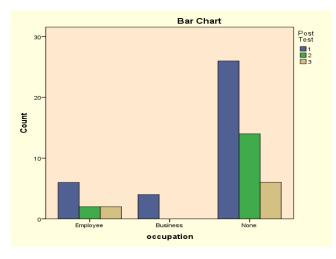
have severe depression and remaining are normal in post-test.

. **Table 4: Gender Levels of Depression in Post-test**

In post-test 16.66% of elderly of samples 10 have mild depression and 8.33% of elderly of samples 5 have severe depression and 10% of elderly males of sample 6 has mild depression and 5% elderly males of sample 3 has severe depression and rest others are normal.

Based on marital status 50% of others (widows, divorced, etc.) of samples 30 have mild depression and 13.33% of samples 8 have severe depression and rest in others category are normal.11.66% of married samples 7 have mild depression and 6.6% of samples 4 have severe depression and rest others are normal in this category.1.66% of sample 01 are normal and other have mild depression with same percentage and sample size in pre-test.

Based on occupation 13.33% of employees sample 08 have mild depression and 3.33% of employee of sample 2 have severe depression.5% of employees of sample 3

are normal and have mild depression with same percentage and sample.13.33$ of others of samples 8 are normal, 46.6% of others of sample 28 have mild depression and 16.6% of others of sample 10 have severe depression in pre-test.

Based on occupation 10.0% of employee's sample 06 are normal, 3.3 % of sample 2 have mild and severe depression, 6.6% of business of sample 4 are normal and rest are normal in this category, 43.3% of others of sample 26 are normal, 23.3 % of sample 14 have mild depression and 10.0% of sample 6 have severe depression in post-test.

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