

Effectiveness of Music therapy on depression amid the aging women

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Abstract

Old age is not a disease, which is an inescapable reality of the human existence on the planet earth, plays a crucial role in the global demographic transition. Failure to adaptations of the ageing which can lead to frustration, bitterness, hopelessness, helplessness and insecurity makes older people liable to get depression in later life. The objectives of the study were to identify the socio demographic variables of aging women, to assess the pre-test level of depression before intervention, to evaluate the post-test level of depression after the therapy intervention, to determine the effectiveness of music therapy intervention and to find association between post test scores in reduction of depression with the selected demographic variables. Quantitative evaluativeresearch approachwith one group pretest and posttest, pre-experimental design was adopted in this study. Non probability purposive sampling technique was used to select the 60 samples. The music therapy was administered for a period of four weeks among aging women who were selected based on the inclusion criteria. The level of depression was assessed using geriatric depression scale. The finding of the study shows that the pretest score was 34.47 with standard deviation of ± 2.93 . The posttests score was 21.37 with standard deviation of ± 1.95 . This study revealed that music therapy was effective and healed the depression among aging women. So the differences are large and it showed statistically significant difference ($P \leq 0.001$) in paired test. There is significant difference between pretest and posttest level of depression amidaging women at level of $p < 0.05$. So, hypothesis have been accepted. Hence the objectives have been achieved and hypothesis is proved.

Key words: Aging women, music therapy, depression.

Introduction

Mental health is an integral part of overall health status but has been a largely neglected issue in the developing world. Depression is like an octopus; it reaches its tentacles into so many aspects of life and is an illness that involves the body, mood, and thoughts. It affects the way a person eats and sleeps, the way one feels about oneself, and the way one thinks about things. It is more common among women than men, likely due to certain biological, hormonal, and social factors that are unique to women. Women are more likely to

have depression than men, and 1 in 4 women will require treatment for depression at some point, compared to 1 in 10 men.

Depression has the highest prevalence rate (17 %) among the psychological health issues occurring among the aging population. The median prevalence rate of depressive disorders in the world for the elderly population was documented to be 10.3% and in Indian population was determined to be 21.9%. The community-based mental health studies in India have shown that the point prevalence of depressive disorders in elderly Indian population varies between 13% and 25%. Depression in women differs from depression in men in several ways like depression in women may occur earlier, last longer, and be more likely to recur than depression in men. In women, depression is more likely to be associated with stressful life events and be more sensitive to seasonal changes.

WHO (2012) nearly 8% of persons aged >60 years (6% of males and 10% of females) report current depression. Females have higher rates of depression than males in every age group.

According to Plato music is a moral law. It is an expression of soul and soul to the universe, wings to the mind, flight to the imagination, a charm to sadness to gaiety and life to everything". Listening to music provides wonderful effect to alleviate depression. Music is a significant mood changer. Music can lead as person to a state of harmony. Thus music has been frequently used as the therapeutic agent and Indian classical ragas are proved to be very effective from the ancient times.

Historically, music has proven to be an effective means of therapy for many different populations. Music is a powerful tool, particularly suitable for gerontology care since it helps them maintaining and restoring health. Music therapy is one of the expressive therapies, consisting of a process in which a music therapist uses music and all of its facets physical, emotional, mental, social, aesthetic, and spiritual to help clients improve their physical and mental health.

Need for the study:

Global level:

Depression is ranked as the single largest health problem to non-fatal health loss and is a major factor to suicide globally. Nowadays, geriatric depression is increasingly an urgent mental health problem as the world population is aging quickly. It is a popular health issue which causes great distress for the senior individuals, their families and society.

According to WHO (2017) As older people progressively encounter special physical and mental health challenges including geriatric depression, it is important that the disease and its treatment options are studied and understood thoroughly.

International level:

Debra Fulghum Bruce (2020) Clinical depression in older people is common. That doesn't mean it's normal. Late-life depression affects about 6 million Americans ages 65 and older. But only 10% get treatment. The likely reason is that older people often display symptoms of depression differently. Depression reduces an older person's ability to rehabilitate.

NuworzaKugbey, Theodore AtsuNortu et al (2017) Depression is reported as one of the most prevalent psychopathology found among elderly people. There is a relatively high level of depression among the aged.

Indian level:

Sandeep Grover, Nidhi Malhotra (2022) reviewed the existing literature on depression among elderly arising from India. Search was carried out using PubMed, Google Scholar,

Google, and Medknow search engines to identify the relevant studies. The review of data suggests that prevalence of depression among elderly in India is high.

According to study by Manju Pilania, Vikas Yadav, et al (2019) 51 studies from 16 States of India were included as 56 datasets, which estimated the prevalence of depression among Indian elderly population as 34.4%.

Community level:

Buvnesh M Kumar, T. K. Raja et al (2021) conducted a study on elderly people residing in tenements under resettlement scheme in Semmenchery, Kancheepuram district, Tamil Nadu and concluded that the overall prevalence of depression was 35.3%.

Objectives of the study:

1. To identify the socio demographic variables of aging women.
2. To assess the pre-test level of depression before music therapy intervention.
3. To evaluate the post-test level of depression after the musictherapy intervention.
4. To determine the effectiveness of music therapy intervention.
5. To find association between post test scores in reduction of depression with the selected demographic variables.

Hypothesis:

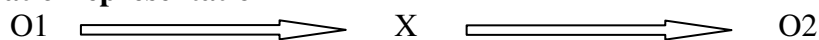
- H1: There will be a significant difference between pretest and posttest mean scores of level of depression amid aging women.
- H2: There will be a significant association between mean posttest score of level of depression with their selected demographic variables amid aging women.

Research Methodology:

Research approach: Quantitative evaluative research approach.

Study Design: Pre-experimental one group pre-test and post-test study design.

Schematic Representation



Key

- O1 Pre-test to assess the level of depression amid the aging women by geriatric depression scale.
- X Music therapy
- O2 Post-test to assess the level of depression by geriatric depression scale amid the aging women.

Duration of study: The study was conducted for four weeks.

Study population: The study population of this study was aging women (60-75 years) with depression, Chennai.

Sample Size : A Sample of 60 aging women who met the inclusion criterion was selected for this study.

Sampling criterion:

Inclusion Criteria

- Women within age group 60-75 years.
- Aging women who were available during the data collection period.
- Aging women who were willing to give consent (oral and written) for the study.
- Aging women who can able to understand and speak Tamil or English.

Exclusion criteria

- Aging women who had previous music therapy intervention.
- Aging women those who had congenital disorders like hearing disabilities.
- Aging women who were clinically unstable, had severe cognitive decline, and were taking antipsychotic medication

Sampling technique: Non probability purposive sampling technique was used to select the 60 samples.

Research variable: The two categories of variable discussed in this study were

a) **Independent Variable:** Music therapy

b) **Dependent Variable:** Depression amid aging women.

Development and description of the tool

Development of Tool:

Tool was selected after extensive literature review from the various text book, internet search, guidance and discussion with experts in the field of nursing, psychiatry and statistics. A structured questionnaire was used to collect data from the aging women who were residing in Chennai.

Description of Tool: The tool consists of Section A and B

Section A: Socio – demographic profile

It includes socio demographic details such as: age, religion, marital status, education, past occupation, type of family, income group, recreation, number of children, and family history of depression.

Section B: Structured Questionnaire

The structured questionnaire Geriatric Depression Scale (GDS) was used regarding the assessment of depression. It is a self-report measure of depression in older adults. The users respond in a “Yes/No” format. This scale was originally developed as a 30-item instrument. Of the 30 items, 20 indicate the presence of depression when answered positively while the other 10 are indicative of depression when answered negatively. This form can be completed in approximately 5 to 7 minutes. This scale may be used with healthy, medically ill and mild to moderately cognitively impaired older adults. It has been extensively used in community, acute and long-term care settings.

Scoring procedure:

Minimum score = 0 Maximum score = 30 Questions = 30 Total score = 30

0-9	No depression
10-19	Mild depression
20-30	Moderate and severe depression

Reliability of the Tool

After pilot study reliability of the tool was assessed by using split - half method. The ‘r’ value obtained was 0.85 which showed a high positive correlation. Hence the tool was considered reliable.

Intervention protocol:

Place	▪ Community setting and old age home, Chennai.
Intervention	▪ Music therapy
Tool	▪ Geriatric depression scale
Duration	▪ Four weeks.
Frequency	▪ Twice a day
Time	▪ Morning 8 - 10. ▪ Evening 3 - 4.
Administered by	▪ The Investigator
Recipient	▪ Aging women(60-75yrs)
Procedure	▪ Old melodies song was played through mobile phone

	attached with blue tooth speaker
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Data Collection Procedure

The entire data collection procedure was spread out over a period of four weeks. There were 70 aging women above 60 years from different parts of Chennai, irrespective of caste, creed and religion, relinquished by family in both community setting and old age home. Initially the investigator approaches each elderly after getting permission. Investigator selected 65 samples initially, in that 3 of them were dropped due to chronic illness, and 2 were not willing to participate in the study. The investigator selected 60 samples as per the inclusion and exclusion criteria. They were introduced to the whole programme after an introduction and then a written informed consent was obtained from them for willingness to participate in the study. They were assured that their responses and details will be kept confidential and will be used only for the research purpose. Before the tool was administered some informal discussions were made with participants to establish rapport so that they would be relaxed.

The total 60 samples were divided into two groups. Each group contained 30 people, 30 aging women from the community settings and 30 from the old age home. The pre-test questionnaire was administered to them and they were asked to give appropriate answers for all statements to find out the depression level by structured scale before music therapy. First the investigator demonstrated the music therapy steps to first group for 45 to 50 minutes in the morning and evening session per day up to first 2 weeks.

The data was collected in three stages:

Stage I (Assessment First Week)

- Informed written consent was obtained to select the samples to conduct music therapy from the concerned authorities of old age home.
- The samples were informed about the purpose and procedure of the study and an informed written consent from the samples were also collected.
- Investigator established rapport with the samples and the purpose of the interview was explained to the study samples.
- Pre-test was administered to them who were willing to take part in the study. Geriatric depression scale was used to assess the level of depression among aging women.
- Individual having audio logical deficits were excluded from the screened group
- Purposive sampling was done to select the sample.

Stage II (Intervention Second and Third Week)

The investigator encouraged the samples to hear music through the blue tooth speaker for 45 minutes as two sessions over a period of 4 weeks under the supervision of the investigator.

Step 1. Assessments & Evaluations

During the first two or three sessions with the aging women, the investigator uses instruments and a basic session design (greeting & closing songs) that is old melodies songs to collect data and will look at seven skill areas - physical, social, behavioural, cognitive, communicative, creative and musical. After the data has been collected, individual or group goals and objectives were chosen.

Step2. Sessions

After the goals and objectives are defined, the investigator meets the aging women on a fixed weekly schedule in an agreed location. The duration is from morning 10 am to 12 pm and evening 2 pm to 4pm. Therapy sessions are individually designed to reach the goals stated and the investigator uses music, instruments, song writing, improvisation and movement to support the elderly people in meeting those goals. Women become active and central participants in music making at whatever level they are currently able. After every session, the investigator takes notes to track the progress of the therapy.

Step 3. Re-assessment

Through the process of tracking the aging women progress, the investigator might re-adjust the goals and objectives either because the first goals have been met or because other more important needs arise. In some cases, where music therapy does not seem to be reaching the desired objectives, the investigator will recommend ending the treatment. However, music therapy can be used as an on-going therapy for aging women who respond positively and have on-going needs.

Step 4. Closure

The relationship between the investigator and aging women is a close one. Therefore, in the best interest of them, proper closure is very important, no matter what the reason for ending the therapy is.

Stage III (Reassessment second and third week)

An immediate post-test to the study samples is done to evaluate the changes in the level of depression who have undergone music therapy.

Stage IV (Conclusion fourth week)

With the closure of the music therapy the investigator thanked everyone for cooperating for the study and also insisted about the importance of hearing music for reducing depression.

SCHEDULE OF DATA COLLECTION PROCEDURE

Day	10.00am to 12pm		LUNCH	2.00pm to 4 .00pm	
Day 1	State about introduction purpose, benefits of music therapy.	Pre-test was conducted		Informed consent was obtained	Discuss about merits and demerits of music therapy
Day 2	Explanation about the steps and techniques of music therapy was given.	Demonstrate the first step is Assessment and Evaluation (seven skill areas -physical, social, behavioral, cognitive, communicative, creative and musical)		Re-demonstration of the first step	Encourage the individual practice and clarification of doubts

Day 3	Reviewing the previous class	Demonstrated the 2nd step (i.e.) sessions. (music, instruments, song writing, improvisation and movement)	Re-demonstration of the first and the second step	Clarification of doubts in the first 2 steps
Day 4	Discussion about the first 2 step of music therapy	Demonstrated the 3rd step. (i.e.) Re-assessment (re-adjust the goals and objectives)	Encouraged to practice third step. It is a very essential one.	Individual practice to overcome the difficulties
Day 5	Encouraged to remember all previous steps of music therapy	Demonstrated the 4th step. (i.e.) closure relationship between the music therapist and his/her clients	Practiced each steps of assessment and evaluation in music therapy	Clarification of doubts along with practicing.
Day 6	Reviewing previous steps music session	Making them hear old melody songs	Re-demonstration of utensils music.	Individual practicing utensils music.
Day 7	Reviewing all the steps from the first class	Demonstrated the utensils that can create audible music	Re-demonstration of all the steps of music therapy.	Clarification of doubts in session.

Schematic representation of the study

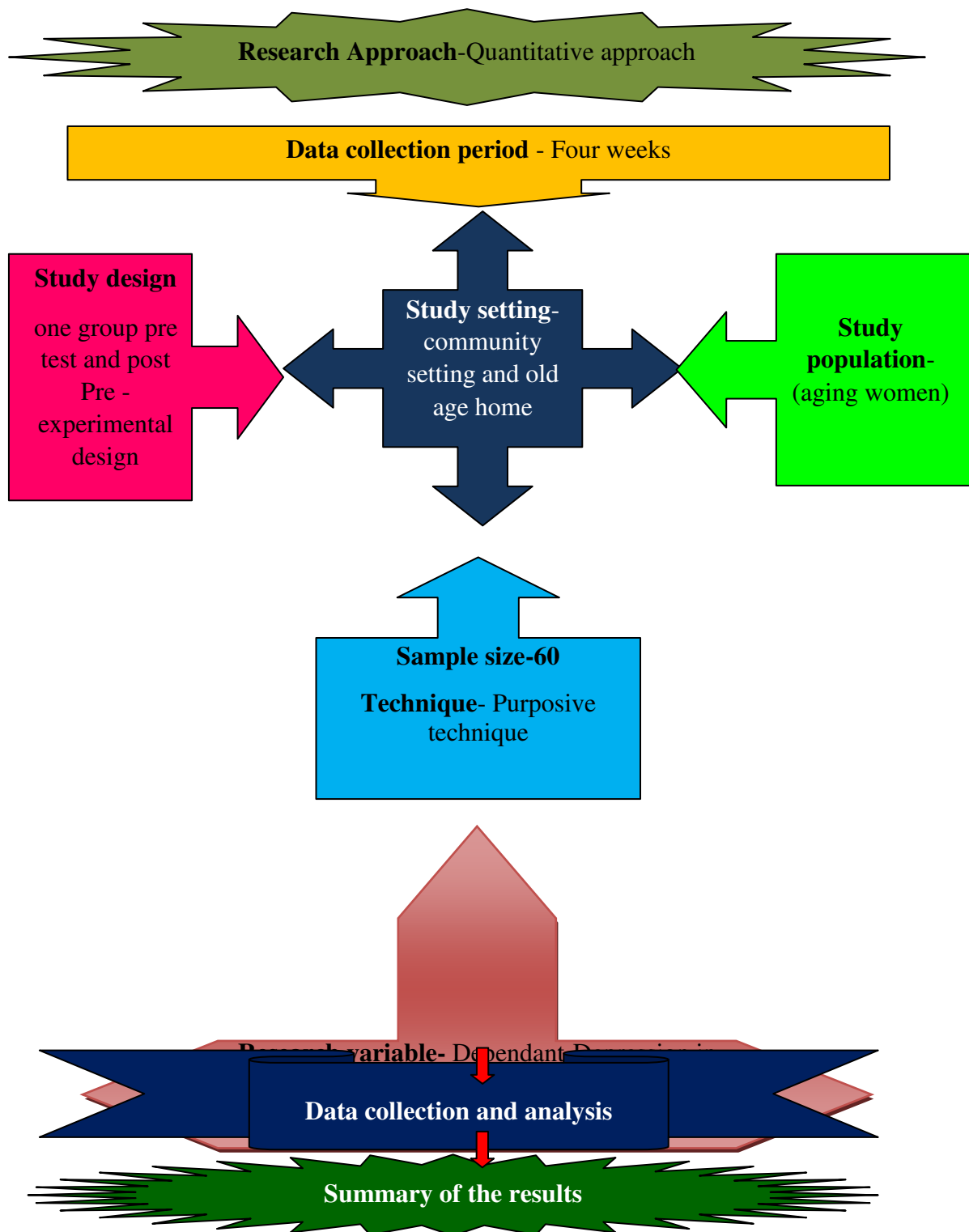


Table-1: Distribution of socio demographic profiles of the aging women

Demographic variables		Frequency	%
Age	60 -65 years	36	60.0%
	65 -70 years	16	26.7%
	70 -75 years	8	13.3%

Education	Non formal education	12	20.0%
	Primary school	31	51.7%
	High school	13	21.7%
	Higher secondary	4	6.6%
	College	0	0.0%
Past Occupation	Government service	2	3.3%
	Private	10	16.7%
	Business	4	6.7%
	Agriculture	15	25.0%
	Others	29	48.3%
Religion	Hindu	37	61.7%
	Christian	18	30.0%
	Muslim	5	8.3%
Marital status	Married	25	41.7%
	Single	31	51.6%
	Divorced	1	1.7%
	Widow	2	3.3%
	Separated	1	1.7%
Type of family	Nuclear family	33	55.0%
	Joint family	26	43.3%
	Extended family	1	1.7%
Income group	Below Rs.5,000	47	78.4%
	Rs.5,001-10,000	6	10.0%
	Rs.10,001-15,000	5	8.3%
	Above Rs.16,000	2	3.3%
Recreation	Reading books	0	0.0%
	Listening music	8	13.3%
	Watching TV	32	53.4%
	Talking with others	20	33.3%
No. of Children	1 or 2 children	23	38.3%
	More than 2 children	37	61.7%
Family history of depression	No	33	55.0%
	Yes	4	6.7%
	Unknown	23	38.3%

Table 2: Pre-test Level of depression score

Level of depression	No. of clients	%
Mild	0	0.0%
Moderate	34	56.7%
Severe	26	43.3%
Very severe	0	0.0%
Total	60	100%

Table 3: Post-test Level of depression score

Level of depression	No. of clients	%
Mild	39	65.0%
Moderate	21	35.0%
Severe	0	0.0%
Very severe	0	0.0%
Total	60	100%

Table 4: Comparison of Pre-test and Post-test level of depression score

Level of depression	Group					Extended McNemar's test
	Pre-test			Post-test		
	No. of clients	%	No. of clients	%		
Mild	0	0.0%	39	65.0%	$\chi^2=90.72$ $P=0.001$ *** DF=2 significant	
Moderate	34	56.7%	21	35.0%		
Severe	26	43.3%	0	0.0%		
Very severe	0	0.0%	0	0.0%		
Total	60	100%	60	100%		

DF= Degrees of Freedom $P>0.05$ not significant *** $P<0.001$ very high significant

Table 5: Comparison of Pre-test and Post-test Score

	No. of clients	Depression score Mean \pm SD	Mean Difference	Student's paired t-test
Pre-test	60	34.47 \pm 2.93	13.10	t=33.37 $P=0.001$ *** significant
Post-test	60	21.37 \pm 1.95		

*** Very high significant at $P\leq 0.001$

Table 6: Effectiveness of Music therapy

	Max score	Symptom score Mean \pm SD	Mean Difference of symptom score with 95% Confidence interval	Percentage of reduction score with 95% Confidence interval
Pre-test	30	34.47 \pm 2.93	13.10(12.31 – 13.89)	19.8%(18.6% –21.0%)
Post-test	30	21.37 \pm 1.95		

Table 7: Association Between Demographic Variables and Pre-test Level of Depression Score

Demographic variables		Pre-test level of depression					Chi square test
		Moderate		Severe		n	
		n	%	n	%		
Age	60 -65 years	23	63.9%	13	36.1%	36	$\chi^2=2.25$ P=0.32 DF=2
	65 -70 years	8	50.0%	8	50.0%	16	
	70 -75 years	3	37.5%	5	62.5%	8	
Education	Non formal education	8	66.7%	4	33.3%	12	$\chi^2=4.40$ P=0.22 DF=3
	Primary school	14	45.2%	17	54.8%	31	
	High school	10	76.9%	3	23.1%	13	
	Higher secondary	2	50.0%	2	50.0%	4	
Past Occupation	Government service	2	100.0%			2	$\chi^2=1.87$ P=0.75 DF=4
	Private	5	50.0%	5	50.0%	10	
	Business	2	50.0%	2	50.0%	4	
	Agriculture	9	60.0%	6	40.0%	15	
	Others	16	55.2%	13	44.8%	29	
Religion	Hindu	23	62.2%	14	37.8%	37	$\chi^2=1.34$ P=0.51 DF=2
	Christian	9	50.0%	9	50.0%	18	
	Muslim	2	40.0%	3	60.0%	5	
Marital status	Married	14	56.0%	11	44.0%	25	$\chi^2=4.96$ P=0.29 DF=4
	Single	19	61.3%	12	38.7%	31	
	Divorced			1	100.0%	1	
	Widow			2	100.0%	2	
	Separated	1	100.0%			1	
Type of family	Nuclear family	21	63.6%	12	36.4%	33	$\chi^2=2.58$ P=0.27 DF=2
	Joint family	12	46.2%	14	53.8%	26	
	Extended family	1	100.0%			1	
Income group	Below Rs.5,000	26	55.3%	21	44.7%	47	$\chi^2=4.00$ P=0.26 DF=3
	Rs.5,001-10,000	2	33.3%	4	66.7%	6	
	Rs.10,001-15,000	4	80.0%	1	20.0%	5	
	Above Rs.16,000	2	100.0%			2	
Recreation	Reading books & Listening music	5	62.5%	3	37.5%	8	$\chi^2=2.80$ P=0.24 DF=2
	Watching T.V	15	46.9%	17	53.1%	32	
	Talking with others	14	70.0%	6	30.0%	20	
No. of children	1 or 2 children	14	60.9%	9	39.1%	23	$\chi^2=0.26$ P=0.60 DF=1
	More than 2 children	20	54.1%	17	45.9%	37	
Family history of depression	No	16	48.5%	17	51.5%	33	$\chi^2=4.12$ P=0.13 DF=2
	Yes	4	100.0%	0	0.0%	4	
	Unknown	14	60.9%	9	39.1%	23	

P > 0.05 not significant, DF= Degrees of freedom NS= not significant

Table 8: Association between demographic variables and post-test level of depression score

Demographic variables		Post-test level of depression					Chi square test
		Mild		Moderate		n	
		n	%	n	%		
Age	60 -65 years	30	83.3%	6	16.7%	36	$\chi^2=9.74$ P=0.01** DF=2 S
	65 -70 years	8	50.0%	8	50.0%	16	
	70 -75 years	3	37.5%	5	62.5%	8	
Education	Non formal education	4	33.3%	8	66.7%	12	$\chi^2=8.96$ P=0.03* DF=3 S
	Primary school	23	74.2%	8	25.8%	31	
	High school	11	84.6%	2	15.4%	13	
	Higher secondary	3	75.0%	1	25.0%	4	
Past occupation	Government service	2	100.0%			2	$\chi^2=1.75$ P=0.78 DF=4
	Private	7	70.0%	3	30.0%	10	
	Business	2	50.0%	2	50.0%	4	
	Agriculture	9	60.0%	6	40.0%	15	
	Others	19	65.5%	10	34.5%	29	
Religion	Hindu	21	56.8%	16	43.2%	37	$\chi^2=2.89$ P=0.23 DF=2
	Christian	14	77.8%	4	22.2%	18	
	Muslim	4	80.0%	1	20.0%	5	
Marital status	Married	14	56.0%	11	44.0%	25	$\chi^2=6.83$ P=0.15 DF=4
	Single	23	74.2%	8	25.8%	31	
	Divorced			1	100.0%	1	
	Widow	2	100.0%			2	
	Separated			1	100.0%	1	
Type of family	Nuclear family	19	57.6%	14	42.4%	33	$\chi^2=2.08$ P=0.35 DF=2
	Joint family	19	73.1%	7	26.9%	26	
	Extended family	1	100.0%			1	
Income group	Below Rs.5,000	29	61.7%	18	38.3%	47	$\chi^2=5.90$ P=0.11 DF=3
	Rs.5,001-10,000	6	100.0%			6	
	Rs.10,001-15,000	2	40.0%	3	60.0%	5	
	Above Rs.16,000	2	100.0%			2	
Recreation	Reading books & listening music	7	87.5%	1	12.5%	8	$\chi^2=8.68$ P=0.01** DF=2 S
	Watching T.V	24	75.0%	8	25.0%	32	
	Talking with others	8	40.0%	12	60.0%	20	
No. of children	1 or 2 children	19	82.6%	4	17.4%	23	$\chi^2=5.08$ P=0.02* DF=1 S
	More than 2	20	54.1%	17	45.9%	37	

	children						
Family history of depression	No	18	54.5%	15	45.5%	33	$\chi^2=3.53$ P=0.17 DF=2
	Yes	3	75.0%	1	25.0%	4	
	Unknown	18	78.3%	5	21.7%	23	

P> 0.05 not significant, DF= Degrees of freedom ** P<0.01 highly significant *P<0.05 significant

Table 9: Association between demographic variables and post-test level of depression reduction score

Demographic variables		n	Depressive symptom reduction score						Oneway ANOVA F-test and t-test
			Pre-test		Post-test		Reduction score=pre-post		
			Mean	SD	Mean	SD	Mean	SD	
Age	60 -65 years	36	34.19	2.75	21.30	1.83	12.89	3.11	F=4.21 P=0.02* S
	65 -70 years	16	34.69	3.11	23.56	1.90	11.13	3.44	
	70 -75 years	8	35.25	3.54	25.45	2.71	9.80	1.69	
Education	Non formal education	12	33.75	2.09	25.21	1.85	8.54	2.68	F=3.99 P=0.01** S
	Primary school	31	35.32	3.09	24.51	1.86	10.81	2.82	
	High school	13	33.15	2.79	21.15	2.12	12.00	3.40	
	Higher secondary	4	34.25	2.99	21.45	1.50	12.80	2.16	
Past occupation	Government service	2	33.50	.71	19.00	1.41	12.50	2.12	F=0.35 P=0.87
	Private	10	33.90	3.60	20.80	2.25	11.10	3.54	
	Business	4	34.25	4.11	22.25	1.50	10.00	3.92	
	Agriculture	15	34.07	3.24	21.40	1.99	10.67	3.42	
	Others	29	34.97	2.51	21.59	1.84	11.38	2.70	
Religion	Hindu	37	33.89	3.05	21.46	2.14	10.43	3.08	F=2.44 P=0.10
	Christian	18	35.50	2.38	21.33	1.68	12.17	2.48	
	Muslim	5	35.00	3.24	20.80	1.48	12.20	3.77	
Marital status	Married	25	34.12	2.99	21.92	1.78	10.20	3.34	F=1.85 P=0.13
	Single	31	34.55	2.95	20.81	2.01	11.74	2.63	
	Divorced	1	38.00	.	23.00	.	13.00	.	
	Widow	2	36.50	2.12	21.00	.00	13.50	2.12	
	Separated	1	33.00	.	24.00	.	7.00	.	
Type of family	Nuclear family	33	34.45	3.01	21.79	1.80	10.67	3.49	F=0.74 P=0.47
	Joint family	26	34.62	2.86	21.00	1.92	11.62	2.38	
	Extended family	1	31.00	.	17.00	.	12.00	.	
Income group	Below Rs.5,000	47	34.45	2.91	21.38	2.01	11.06	2.94	F=0.32 P=0.80

	Rs.5,001-10,000	6	35.33	4.08	21.33	.82	12.00	4.56	
	Rs.10,001-15,000	5	34.00	2.55	21.80	2.68	10.20	2.77	
	Above Rs.16,000	2	33.50	.71	20.00	1.41	11.50	2.12	
Recreation	Reading books & listening music	8	33.00	3.21	21.09	1.30	11.91	2.86	F=5.28 P=0.01** S
	Watching T.V	32	35.38	2.94	24.58	2.09	10.80	2.44	
	Talking with others	20	33.60	2.39	24.80	1.79	8.80	2.54	
No. of children	1 or 2 children	23	34.61	2.68	22.68	1.81	11.98	2.35	t=2.21 P=0.03*S
	More than 2 children	37	34.38	3.11	23.93	1.97	10.45	3.35	
Family history of depression	No	33	34.88	3.15	21.94	1.84	10.94	3.26	F=0.10 P=0.89
	Yes	4	32.75	1.26	19.25	2.63	11.50	2.38	
	Unknown	23	34.17	2.74	20.91	1.68	11.26	2.91	

P> 0.05 not significant ** P<0.01 highly significant *P<0.05 significant

Discussion:

Objective I: To identify the socio demographic variables of the aging women

Age: Analysis in the demographic data revealed that among 60 aging women, the majority of 36 (60.0%) were between 60 to 65 years, 16(26.7%) were between 65 to 70 years, 8(13.3%) were between 70 to 75 years. Most of the studies related to depression involved females whose ages were between 60 to 65 years.

Education: With regards to their education qualification 31(51.7%) of the study subjects had studied up to primary school, 12(20.0%) were non formal education, 13(21.7%) had high school education, 4(6.6%) had higher secondary education, 0(0.0%) completes the graduation.

Past Occupation: Among the study subjects, the aging women of 10(16.7%) had skilled private jobs, 15(25.0%) performed agriculture, 4 (6.7%) had performed business, 29(48.3%) engaged in other jobs, 2(3.3%) performed government jobs.

Religion: Among the study subjects, the aging women belongs to Hindu were 37(61.7%), subject belongs to Christian were 18(30.0%) and Muslims 5 (8.3%). Most of the subjects are from Hindu religion.

Marital Status: Majority of the study subjects of 25(41.7%) were married, 2(3.3%) of them were Widowed, 31(51.6%) were single, only one subject (1.7%) was a divorcee and only one subject also separated (1.7%).

Type of family: Among the study subjects 33(55.0%) belongs to nuclear family, 26(43.3%) joint family, 1(1.7%) belongs to extended family.

Income group: 47(78.4%) belongs to income below Rs.5000, 6(10.0%) between Rs. 5001-10000, 5(8.3%) between Rs.10000-15000 and none of them were above Rs.16000.

Recreation: Among the study subjects 32(53.4%) watch television, 8(13.3%) read books and listen to music, 20(33.3%) talk with others.

No. of children: Among the study subjects 23(38.3%) had 1 or 2 children, 37(61.7%) more than 2 children.

Family history of depression: Among the study subjects 33 (55.0%) had no family history of depression, 4(6.7%) had family history of depression and 23(38.3%) unknown.

Objective II: To assess the level of depression amid the aging women before the music therapy

The study result of depression percentage before music therapy and the overall depression score is 100%. The aging women had mild depression is none. In general, 56.7% of the aging women had moderate level of depression, 43.3% had severe depression. With mean and standard deviation as 13.10 (34.47±2.93)

Objective III: To evaluate the level of depression amid the aging women after the music therapy.

The study result of depression percentage after music therapy and the overall depression score is 100%. The aging women had mild depression is 39 (65.0%). In general, 21(35.0%) of the aging women had moderate level of depression, none of them had severe depression.

Objective IV: To determine the effectiveness of music therapy intervention.

In effectiveness of music therapy, the overall pretest score among the aging women was 34.47 with standard deviation of ± 2.93 and in posttest, the score is 21.37 with standard deviation of ±1.95. So the differences are large and it showed statistically significant difference ($P \leq 0.001$) in paired test. Music therapy is effective in reducing depression among aging women.

Objective V: To find the association of post test score with selected demographic variables.

The association between the level of depression reduction score with the socio demographic variables. Females were with age 60-65 years, educated, source of information, number of children are reduced more score than others. Statistical significance was calculated using chi square test.

Recommendation for further studies:

- In light of, the finding of the present study can be used as a guide for future research. A similar study can be replicated with on a large sample in different community settings.
- A similar study can be conducted to assess the effectiveness of other complimentary therapies on depression.

Conclusion:

The nurses play an important role in prevention of depression. The investigator as a mental health nurse felt that nurses are ideally placed to implement proactive strategies to prevent depression, to promote early detection of symptoms and to ensure access to effective treatment in people. Mental health nurse has a key. Depression is like an octopus; it affects the way a person eats and sleeps, the way one feels about oneself, and the way one thinks about things.

Music has no doubt plays a critical role in the lives of human beings. Incorporating music therapy with regular therapy programs for psychiatric disorders can help speed recovery and also help make therapy a positive experience. Through music therapy, the aging women depression had got reduced to 19.83%. So this reduction in depression level reflects the effectiveness of music therapy. So the nurses should educate the aging women to understand the causes of depression and advantages of music therapy. This chapter enlightens

the importance of this research and reveals that the reduction in the level of depression among aging women is significant.

References:

Books:

- Burns Nancy, Groove K. Susan (2008) "Understanding Nursing Research" Fourth edition, Philadelphia Saunders Publications, PP. No 133-141.
- Crookes. A. Patrick, Davis Sue, (1998) "Research into Practice" Second Edition, Edinburgh, Tindal, PP. No 133-141
- David M. Kevin J.K. (1982) "Psychiatric Nursing", 5th Edition London Churchill Livingstone.
- FademBarhara (2004)" Behavioral Science in Medicine, 1st edition; Philadelphia; Lippincott.
- Gupta. S. P. (1998) "Statistical Methods" 28th Edition New Delhi: Sultan Chand and Sons Publishers.
- Kothari C.R. "Research Methodology, Methods and Techniques" 2nd Edition New Delhi: ViswaPrakash publications.
- Wong. D.L (2005) "Whaley's and Wang's Essentials of Psychiatric Nursing" St. Louis Mosby publication.

Journals:

- American psychiatric association diagnostic and statistical manual for mental disorders: volume 7 (3) 2000
- Deepthi.R: Visual and Hearing impairment among rural elderly of South India: A community base study Geriatrics & Gerontology international, Volume 7, 2011, PP. No 45-50
- Dr. Frederick TIMS., (1999) American Music College music news volume 6.
- Chan MF, Wong ZY, Thayala NV. A systematic review on the effectiveness of music listening in reducing depression in adults. JBI Library of Systematic Reviews 2010;8(31):1242-1287.
- Lupp M, Sikorski C, et al: "Age- and gender-specific prevalence of depression in latest-life – systematic review and meta-analysis. J Affect Disorder 2012, 136(3):212–221.
- World Health Organization: International statistical classification of diseases and health related problems ICD-10. Geneva: World Health Organization; 1994.
- WHO: Healthy Aging, Practical pointers on keeping Well, WHO Western Pacific Region.

NET References:

- <http://www.Depression article /Top7 depression>
- [Quotes.htm- United states.](http://www.Quotes.htm- United states)
- <http:// www.webstatscher.com/stats/ domain/ aeriagloris.com>
- <http:// depression management tips.com/family.htm>
- <http:// www. Depression relief tools.com / long term effects>
- [of depression on the body.](http:// www.music.com /)
- <http:// www.music.com />
- <http:// www. Music therapy.org.net/yoga-lifestyle-definition.htm>