ORIGINAL RESEARCH PAPER

Psychiatry

EFFECTIVENESS OF MUSIC THERAPIES ON AUDIO VERBAL HALLUCINATION (AVH) AND ASSOCIATED EMOTIONAL DISTRESS (ED) AMONG PATIENTS WITH PSYCHOSIS IN SELECTED SETTINGS AT MANGALURU.

Amala Jacqiline (Sr)	M.Sc-Nursing, Father Muller College of Nursing
Mrs Chanu Bhattacharya	Professor, Dept. of Psychiatric Nursing, Father Muller College of Nursing, Mangaluru-2.
Ms Darryl Monica Serafine Aranha	Assist Professor, Dept. of Obstetrics and Gynaecological Nursing, Father Muller College of Nursing, Mangaluru-2.

ABSTRACT

Audio verbal hallucinations are the most common distress factor among 75% of patients with schizophrenia. Music therapy acts as a distracting the mind from hallucinations and it brings them back to live in reality world.

Materials and Methods: A quasi experimental study was conducted on 60 subjects with Selected Music (30 in group I) & Self Selected Music (30 in group II) groups,

Results: The study findings showed that significant difference between the mean pre and post-test scores of AVH & ED in SM (F=195.12, F=231.16, p<0.001) & in SSM (F=189.52, F=114.42, p<0.001) were significantly greater than table value F=2.04, p<0.05 level of significance.

Conclusion: The findings revealed that Selected Music was more effective in reducing AVH & ED than the Self Selected Music group. Both the music was effective in reducing AVH and ED.

Introduction:

- Patients with psychosis experience lots of audio verbal hallucination which causes emotional distress. It interferes their relationships with people and their work.[1]Finally person gets preoccupied with the unreality world and disconnected from the real world. Music has a positive effect and found to be a good relaxation.[3]Engaging the person to listen to a music acts as a form of distracting the mind from the content of AVH and it brings them back to live in reality.
Mrs Chanu Bhattacharya

Objectives:

1) To assess audio verbal hallucination (AVH) and associated emotional distress (ED) after introduction of therapy with selected music (Group I) and self- selected music (Group II).
2) To find the correlation between audio verbal hallucination (AVH) score and emotional distress (ED) score of Group I and Group II.
3) To determine the association of audio verbal hallucination (AVH) and associated emotional distress(ED) with demographic variables of patients in Group I and Group II.

Materials and Methods:

1. **Setting:** The study was conducted in Psychiatric Unit of Father Muller Medical College Hospital, Mangaluru.

2. **Research approach :** Evaluative approach

3. **Research design:** Quasi experimental repeated measures time series design.

4. **Sample**: 60 Subjects with psychosis having 2 groups with 30 each.

5. **Sampling technique:** Purposive sampling

6. **Inclusion Criteria**
- Subjects who are aged between 18-65 yrs.
- Both male and female subjects who were in in-patients of selected psychiatric hospital, admitted with psychosis
- Subjects who are assessed with audio verbal hallucinations (AVH) and mild to severe distress.
- Subjects who are addicted for alcohol and substance users.

7. **Exclusion Criteria**
- Subjects who are very violent and aggressive
- Those who are not able to communicate and were distractive
- Those who have a co morbid illness or mental retardation or mood disorders

8. **Variable**
 Independent Variable – Music Therapy

 Dependent Variable -Audio verbal Hallucination and emotional distress

9. **Data collection instruments**
- Base Line Proforma 14 items
- Audio Verbal Hallucination(AVH) – Psyrats –A rating scale questionnaire (pre -assessment)
- Distress thermometer (DT) Scale (post – assessment)

10. Description of the Tool:

Tool 1: Baseline proforma with 14 items
This section had items such as age in years, gender, education, marital status, religion, education, occupation, family income, duration of illness, type of family, presence of any other psychiatric patient in family, no of hospitalization, medication and diagnosis.

Tool 2: It is a standardized tool which was developed with 0-5 scale with score -0 indicates absent or negative symptoms and score 1to 5 indicate present or positive symptoms. Scoring is calculated by summing of all the 11 items.

Tool 3: It is a standardized tool where the subject is asked to circle the number on the thermometer (0-10 point scale) which describes the extent of distress experienced in the past week.

Description of the music:
1**. Selected music: (Group I)**
It refers to the administration of rhythmic and melodious tune 'VISHRAM' taken from different Indian instrument music which consists of 8 varieties of instrumental music recorded on a CD selected by the investigator .

2. Self selected music: (Group II)
It refers to the self selected music/ choice of the patient and intended to remove distress and the mind will wake up to a sense of relaxation.

Data collection procedure
The investigator obtained permission from the concerned authority and informed consent was taken from the subjects. Purposive sampling was used for the study. The Purpose of the study was explained & brief introduction about the music was given.Patients were asked to select the music (with double blinded participants) by selecting a sealed envelope for SM and SSM

groups. First the baseline proforma was given, then PSYRATS–A as pre- test rating scale for 5 days was administered after its completion, Music therapy was given for 15 minutes for 5 days, followed by DT scale as a post-test was administered for 10 days (every alternative days 5 days).

Major findings of the study:
Section I: Baseline variables of the patients would be analyzed by frequency and percentage.

Among 60 subjects (30 in SM group and 30 in SSM group).
In both the groups, majority of the subjects were in the age group of 30-40 yrs that is 15(50%) in SM and 13(43.4%) in SSM.
In both the groups, majority of the subjects were Males that is 16(53.4%) in SM and 21(70%) in SSM.

In both the groups, the majority of the subjects had illness for>3years, (66.6%) in SM group and 76.7% in SSM .

Majority of the subjects 16(53.4%) had presence psychiatric patient in their family in SM, whereas, 9(30%) hadin SSM.

In both the groups, the majority of the subjects (66%) had schizophrenia in SM, whereas 53.4% in SSM.

Section II: Assessment of AVH and associated EDscale with selected music was analysed using the repeated measures ANOVA.

The data presented in the table1shows that the computed ($F_{(2,58)}$=195.12, p<0.001) of AVH and (F=231.16, p<0.001) of emotional distress is significantly greater than the tabled value ($F_{(2,58)}$=2.04 p<0.05), which indicates that there is a significant difference in the pre and post-test scores of AVH and ED in the selected music group and inferred that music therapy is effective in reducing AVH and emotional distress.

Section III: Assessment of AVH and associated ED scale with self-selected music was analysed using the repeated measures ANOVA.

The data presented in the table 2 shows that the computed ($F_{(2,58)}$=189.52, p<0.001) of AVH and (F=114.42, p<0.001) of emotional distress is significantly greater than the tabled value ($F_{(2,58)}$=2.04 p<0.05), which indicates that there is a significant difference in the pre and post-test scores of AVH and ED in the self-selected music and inferred that music therapy is effective in reducing AVH and emotional distress.

Section IV: Assessment of AVH & associated ED scores between selected and self- selected music group will be analyzed usingunpaired t test.

The data in table 3 shows that the calculated t value of AVH score 8.04 and distress score 7.08 in selected and self-selected, is greater than the table value 2.00. The results revealed that, both types of music therapy had significant effect on the reduction of AVH and emotional distress. .

Section V: Correlation between the pre-test and post-test scores of AVH and associated emotional distress(ED) will be analyzed by using Karl's Pearson correlation coefficient.

The findings of the present study in table 4 shows that there is a significant negative correlation score (r=-0.03) 1stday, (r=-0.11) 5thday between AVH and emotional distress in selected music, where as there is significant positive correlation score (r=-0.05) 1stday, (r=-0.39) 5thday between AVH and emotional distress in self-selected music at 0.05 level of significance.

SectionVI:
• Association of audio verbal hallucination (AVH) and associated emotional distress (ED) with demographic variables in selected music (SM).

The calculated 'p' values of demographic variables with AVH and ED scores of type of family (χ2=0.03), diagnosis (χ2= 0.09) and job status (χ2=0.009) are lesser than the p<0.05 level of significance. Whereas there is no significance association with other demographic variables.

• Association of audio verbal hallucination (AVH) and associated emotional distress(ED) with demographic variables in self-selected music (SSM).

The calculated 'p' values of demographic variables with AVH and ED scores of diagnosis (χ2= 0.01) , type of family (χ2= 0.03) and occupation (χ2=0.01) are lesser than the p<0.05 level of significance.Whereas there is no significance association with other demographic variables.
Discussion:
In the present study, the mean pre and post -test score of AVH (38.26±1.68) ,(24.06±1.61) and ED (9.03±0.85),(3.66±0.8) in SM was significantly lower than the mean pre and post -test score of AVH (39.20±1.49),(30.36±2.96) and ED (8.36±0.80),(5.23±0.9) in SSM.

The findings of the present study is congruent with the study conducted in Korea, which showed that there was a significant decrease in the mean scores of positive and negative symptoms of schizophrenia, after listening to music in group AB (97.73±22.60) than Group BA (104.9±12.58).

Conclusion:
• From the present study it was found that the Selected Music was more effective in reducing AVH & associated ED than the Self Selected Music. Majority of the patients experienced maximum reduction in AVH and associated ED. Therefore music therapy can be easily integrated into Bed side nursing and plays an important part in decreasing distress and maximum relaxation for nurses, patients and relatives and it helps students to give a new way for their patients order to maintain a psychological and physical equilibrium.

Table1: Distribution of Mean, SD and RM ANOVA scores to show the effectiveness of music therapy on AVH and ED scores with selected music from1stto 5thdays.   N=30

Observ ation	AVH scores			ED scores		
	Mean±SD	RM ANOVA F value	p value	Mean±SD	RM ANOVA Fvalue	p value
O$_1$(Pre interve ntion)	38.26±1.68	195.12*	<0.001*	9.03±0.85	231.16*	<0.001*
O$_2$	35.06±2.61			8.26±0.78		
O$_3$	31.20±3.39			7.33±1.02		
O$_4$	27.26±3.80			5.90±1.24		
O$_5$	24.06±1.61			3.66±0.80		

F=2.04, p<0.05   *significant

Table 2:Distribution of Mean, SD and RM ANOVA scores to show the effectiveness of music therapy on AVH and ED scores with Self-Selected music from1 to 5days.   N=30

Observa tion	AVH scores			ED scores		
	Mean±SD	RM ANOVA F value	p value	Mean±SD	RM ANOVA F value	p value
O$_1$ (Pre interven tion)	39.20±1.49	189.52*	<0.001*	8.36±0.80	114.42*	<0.001*
O$_2$	35.80±2.61			8.00±0.87		
O$_3$	31.76±2.43			7.20±0.84		
O$_4$	29.60±2.41			6.23±1.13		
O$_5$	30.36±2.96			5.23±0.97		

F=2.04, p<0.05   *significant

Table 3: Distribution of Mean difference, SDs, un paired 't' test value of AVH and ED scores with selected & self -selected music groups.

Variables A V H (1-5days)	Music	Mean difference ± SD	Obtained 't' Value	p value
	Selected (S)	14.2 ± 2.17	8.04*	<0.001*
	Self-selected (SS)	8.83 ± 2.93		
E D (1-10 days)	Selected (S)	14.2 ± 2.17	8.04*	<0.001*
	Self-selected (SS)	8.83 ± 2.93		

t58=2.00, p<0.05   *significant

Table 4: Correlation between AVH & associated ED scores with selected and self-selected music.   **N=30+30**

	Selected Music Group			Self-Selected Music Group		
	AVH	ED		AVH	ED	
	Mean ± SD	Mean± SD	r	Mean ± SD	Mean ± SD	r
1st Day	38.26±1.68	9.03±0.85	-.031	39.20±1.4	8.36±0.80	.051
5th Day	24.06±1.61	3.66±0.80	-.115	30.36±2.9	5.23±0.97	.394

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