# "A Study to Assess the Effectiveness of Music Therapy in Reducing Stress among Family Members of Schizophrenia Patient in Selected Hospitals at Jaipur"

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**Abstract:** A pre experimental study to assess the effectiveness of music therapy in reducing stress among family members of schizophrenia patient in selected hospitals at Jaipur city, Rajasthan. The sample consisting of 50 family members was selected by using non-probability convenience sampling technique. The tool comprised of structured stress questionnaire. The pre-test was conducted and the music therapy was administered. The posttest was conducted after one week. The data obtained were analyzed by using descriptive and inferential statistics. The mean score of post-test knowledge 15.16 (25.26 %) was apparently higher than the mean score of pre-test knowledge 27.16 (45.26%), suggesting that the music therapy was effective in reducing stress among family members of schizophrenia patient. The mean difference 12.00 between pre-test and post-test knowledge score of the family members was found to be significant.

**Key words:** effectiveness, music therapy, family members, stress, one group pre – test post – test, pre-experimental study.

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# I. Introduction

Traditional systems of healing in India such as Ayurveda and Yoga systems include various musical treatment approaches. Indian system of music treatment is defined as an "individualistic, subjective and spiritual art, aiming at personal harmony with one's own being and not at symphonic elaborations." <sup>1</sup>

Indian music therapy in contrast to the Western form, which has its theoretical background predominantly based on psychotherapy, involves expression of devotional feelings as a key factor. Most common approach used in the Indian form of music therapy is the "raga-based approach." It basically involves the application of musical pieces focusing on the swara patterns. This approach is found to be stimulating, anxiolytic and sedative. It has been found that it also increases attention and additionally the approach is able to target musical preference and listening pattern.<sup>2</sup>

Music is the art of sound in time, expressing ideas and emotions in significant forms through the elements of melody, harmony and color. Tones or sounds occurring either in in a single line (i.e., melody) or in multiple lines (i.e., harmony) and the feeling of movement of sound in time (i.e., rhythm) are the essential elements of music. The Oxford dictionary defines music as vocal and/or instrumental sounds combined in such a way as to produce beauty of form, harmony and expression of emotion.<sup>3</sup>

Many studies have evidenced the beneficial effects of music therapy in family members Schizophrenia patients. In scientific literature, we have found empirically documented the emotional responses when people listen to music. It has been demonstrated that family members of Schizophrenia patients perceive the expressiveness of the music the same way than without patient. The results support that the music is a good therapeutic modality for family members of Schizophrenia patient.<sup>4</sup>

To reducing stress in family members of Schizophrenia patient give Hansadhawaniraag. **Hansadhawani** (meaning Sound of Swans) also spelled as Hansadhawani, is a rāga in Carnatic music (musical scale of Carnatic tradition of Indian classical music). It is an audava rāgam (or owdava rāga, meaning pentatonic scale). It is a janya rāga of the Melakartha raga, Dheerasankarabharanam (29th) but according to Hamsadhvani's prayoga or the way it is sung it is said to be the janya of Kalyani (65th) Hamsadhvani is also extensively used in Hindustani music and said to be borrowed into it from Carnatic music. [11] It was created by the Carnatic composer RamaswamiDikshitar (1735–1817)<sup>[2]</sup>, father of Muthuswami Dikshitar (one of the

musical trinity of Carnatic music), and brought into Hindustani music by Ustad Aman Ali Khan of the Bhendi bazaargharana.<sup>5</sup>

Loroño showed the benefit contribution that music therapy provided in the therapeutic process to family members of Schizophrenia patient. It was an experience in the framework of a Mental Health Center during a year in Vizcaya. The center assists to patients from public assistance on an outpatient basis. The overall objective of this program was to provide, a novel and aesthetic experience immersed in a therapeutic process which facilitated the development and personal, group and family growth. The family and social environment was closely linked to the therapeutic process, in which, person is an unique individual, from a physical, emotional, free and creative perspective. Other objectives of the sessions were to establish a space and time for relaxation in a context without words, establishing a communication code in rhythm, music listening, nonverbal, exploration, movement, improvisation, leaving a space to word at the end of the sessions.<sup>6</sup>

# II. Research Elaborations

#### Statement of problem-

A study to assess the effectiveness of music therapy in reducing stress among family members of Schizophrenia patients at selected hospitals of Jaipur city.

## III. Objectives

- To assess the level of stress among family member of schizophrenia patient.
- To assess the effectiveness of music therapy in reducing stress among family members of schizophrenia patient.
- To find out the association between post-test stress scores and selected demographic variables.

# IV. Hypothesis

 $\mathbf{H_{1}}$ - There will be difference between association between pre-test stress scores and post-test stress scores of family members.

 $\mathbf{H}_{2}$ - There will be an association between the post-test stress scores of family member of Schizophrenia patient with the selected demographic variables.

## V. Material and method

- > Population- family members
- > Sample- the family members
- ➤ Sample size- 50 family members
- > Settings- Shiv Gautam Hospital, Jaipur
- Sampling technique- non-probability convenience sampling technique

The conceptual framework for the study was developed on the based on - Roy's Adaptation Model

## VI. Research design

The research design selected for the present study was a one group per-test post-test research design. [Table 1: pre- experimental one group Pre-test / Post-test research design]

## Key

$O_1$	X	$O_2$		
Pre-test	Intervention	Post- test		

- O1=Pre-test Knowledge Score in family members group in reducing stress.
- O2: Post-test Knowledge Score in family members group in reducing stress.
- X: Treatment to study group, administration of music therapy in reducing stress.

#### ETHICAL CONSIDERATION

After obtaining permission from research committee of IMTNE, Jaipur, prior permission was obtained from Medical superintendent from - Shiv Gautam Hospital, at Jaipur. Consent was taken from each participant who had participated in the study.

#### **DESCRIPTION OF THE TOOL**

**Section A- Demographic Data:** consisted of selected socio-demographic variables such as age, Religion, Family income, Area of living, Type of family, Education of patient family member, Occupation of family member, Gender of family member regarding music therapy in reducing stress among family members of Schizophrenia patients.

**Section B- Tools and scoring technique:** A structured stress questionnaire was selected based on the objective of the study as it was considered the based and appropriate instrument to elicit the response from the literate subject.

#### **SCORING**

The stress of family members regarding the outcomes of music therapy in reducing stress was scored as follows, one mark for each correct answer and zero marks for incorrect answer. The maximum score was 20, to interpret level of knowledge the score was distributed as follows; Interpretation of knowledge:

LevelRangeInadequate knowledge<50 %</td>Moderate knowledge51-75 %Adequate knowledge>76 %

An answer key was prepared for scoring answer to the structured stress questionnaire

#### DATA COLLECTION AND DATA ANALYSIS

The data was presented under the following sections:

Section-I: Description of socio-demographic variables of the respondents.

Section-II: Distribution of respondents according pre-test and post-test level of knowledge score.

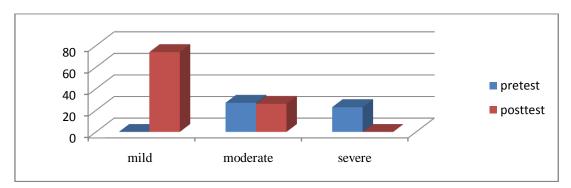
Section-III: Effectiveness music therapy in reducing stress among family members of Schizophrenia patients.

#### VII. Result

**Table 2:** Frequency and percentage distribution of pre-test and post-test level of stress among Family members. (N=50)

			/				
Level of stress		Pre test		Post test	Post test		
Le	vei of stress	Frequency	Percentage	Frequency	Percentage		
a.	Mild stress(0-50%)	00	00	37	74		
b.	Moderate stress (51-75%)	27	54	13	26		
c.	Severe stress(76-100%)	23	46	00	00		
Total		50	100	50	100		

Table 2 depicts that majority 00% of the family member had mild stress, followed by 54% had moderate stress and 46% had severe stress regarding level of family stress in the pre-test. After administration of music therapy 74% of the family member had mild stress, followed by 26% had moderate stress and 00% of them had severe stress.



### SECTION: III Comparison of pre-test and post-test level of family member stress.

The following research hypothesis was stated

 $\mathbf{H_1}$ : There is a significant difference between the pre-test and post-test Stress score of Family members.

 $H_2$ : There is a significant association between pre-test level of Stress score and selected socio-demographic variables.

		Max Score	PRE-TEST			POST-TEST		
tress parameters	No. of Items		Mean	Mean %	SD	Mean	Mean %	SD
Stress related to general condition	3	9	3.26	36.22	0.985	2.1	23.33	1.02
Stress related to emotional condition	6	18	8.38	46.55	1.51	5.2	28.88	1.69
Stress related to personal condition	08	24	11.68	46.66	2.24	6.4	26.66	2.78

27.16

172.09

3.06

15.74

101.54

2.19

**Table 3:** Area wise pre-test and post-test Stress score

The Pre test table showed that the maximum mean percentage obtained by the family member is found in the aspect of stress related to personal condition (46.66%), followed by stress related to emotional condition (46.55%), stress related to social condition (42.66%) and least mean percentage obtained in the aspect of stress related to general condition (36.22%). The overall Mean $\pm$ SD of pretest knowledge score was 27.16 $\pm$  3.06 and mean percentage of 172.16%.

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The post test table showed that the maximum mean percentage obtained by the family member is found in the aspect of stress related to emotional condition(28.88%) followed by stress related to personal condition (26.66%), stress related to general condition(23.33%) and least mean percentage obtained in the aspect of stress related to social condition (22.67%). The overall Mean $\pm$  SD of post test level of academic stress was 15.74 $\pm$  2.19 and mean percentage of 101.54%.

**TABLE 4** -Comparison of pre-test and post-test level of family member stress.

(N=50)

No.

3

Overall

Stress related to social condition

	Mean	Mean Percentage (%)	SD	Decline stress	decline stress percentage (%)	df	t-value	Inference
Pre-test	27.16	45.26%	3.06	12.00	44.18	48	23.19	c
Post test	15.16	25.26 %	2.19		44.10	40	23.19	S

S = SIGNIFICANT

03

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The table 4 it is evident that the obtained "t" value 23.19 is greater than the table value at 0.05 level of significance. Therefore, "t" value is found to be significant. It means there is decline in stress level of family member. This supports that music therapy on reducing family member stress.

# VIII. Conclusion

This study concluded that there is improvement in the level of stress of family members of schizophrenia patient which indicates that music therapy is effective. The demographic variables of family members of schizophrenia patient significantly associated with the pre-test stress score. The development of music therapy will help the family members to improve the stress level among family members of schizophrenia patient .

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