SUMMARY
The main objectives of the study were:

a) To study the effect of active and passive music therapy on the composite scores on negative and positive symptoms for the total sample.

b) To study the effect of active and passive music therapies on the nine subscale scores, namely, flattening, alogia, anhedonia-asociality, avolition, attention deficit hallucination, delusion, bizarre behaviour and positive formal thought disorder for the total sample.

c) To study the effect of active and passive music therapy on the composite scores on negative and positive symptoms for the subsample based on types of schizophrenia.

d) To study the effect of active and passive music therapy on nine subscale scores, included in the study for the subsample based on type of schizophrenia.

e) To study the effect of active and passive music therapy on the composite scores on negative and positive symptoms for the subsamples based on gender, educational level and socio-economic background.

f) To study the effect of active and passive music therapy on the nine subscale scores for the subsamples based on gender, educational level and socio-economic background.

96 schizophrenic patients drawn from two main psychiatric hospitals of Tehran, namely, Shaeid Esmaeily and Shahid Navab Safavi participated in the study. There were randomly assigned to three groups
viz experimental group 1 (N=35, 24 males and 11 females), experimental group 2 (N=27, 15 males and 12 females), and control group (N=34, 21 males and 13 females).

Experimental group 1 was exposed to active music therapy wherein they participated in the actual playing of different musical instruments, singing together and making bodily movements according to the rhythm of music.

Experimental group 2 was exposed to passive music therapy wherein they listened to stimulative music rather than playing any instrument.

Both the therapies were conducted in a group setting and administered for one month. Subjects took part in the music therapy sessions in groups of five to eight. Control group was not exposed to any music activities. All the patients in three groups continued to receive their regular medication.

Pre-test and post test scores of all the patients on all negative and positive symptoms were recorded using Andreasen’s rating Scale for the Assessment of Negative Symptoms [SANS] and Scale for the Assessment of Positive Symptoms [SAPS]). These scales cover the following negative and positive symptoms as given in the Table below. They are rated on six point scale ranging from 0 to 5:

0 = None, 1 = Questionable, 2 = Mild, 3 = Moderate, 4 = Marked, 5 = Severe.
Description of sub-scales included in the study

<table>
<thead>
<tr>
<th>No</th>
<th>Negative symptoms</th>
<th>No</th>
<th>Positive symptoms</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Affective flattening</td>
<td>6</td>
<td>Hallucination</td>
</tr>
<tr>
<td>2</td>
<td>Alogia</td>
<td>7</td>
<td>Delusion</td>
</tr>
<tr>
<td>3</td>
<td>Avolition</td>
<td>8</td>
<td>Bizarre behavior</td>
</tr>
<tr>
<td>4</td>
<td>Anhedonia</td>
<td>9</td>
<td>Positive formal thought disorder</td>
</tr>
<tr>
<td>5</td>
<td>Attention</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Man hypotheses were:

(1) *The music therapy in general will have relatively more favourable effect on negative symptoms of schizophrenic as compared to positive symptoms.*

(2) *Active music therapy and passive music therapy may differ in their effect on different symptoms of schizophrenia.*

(3) *The effect of music therapy will differ with regard to different types of schizophrenia.*

(4) *Effect of music therapy will be moderated by other variables such as sex, age, education and socio-economic background of the subjects.*

The following analyses were undertaken: (a) reliability coefficient (b) ANCOVA and (c) t-test

The following ANCOVAs were performed using composite and sub-scale scores and separately for the total sample and different sub samples:

a) ANCOVA for comparing the experimental and control groups on the composite scores on negative and positive symptoms using total sample.
b) ANCOVA's for comparing the experimental and control groups separately on the nine sub scale scores, namely, Flattening, Alogia, Anhedonia-asociality, Avolition, Hallucination, Delusion, Bizarre behaviour and Positive formal thought disorder using total sample. Nine separate ANCOVA's were done.

c) ANCOVA for comparing the experimental and control groups on the composite scores on negative and positive symptoms separately for the subsamples based on type of schizophrenia, sex, age, educational level and socio-economic background.

d) ANCOVA's for comparing the experimental and control groups on the nine sub scale scores, namely, flattening, alogia, anhedonia avolition, attention deficit hallucination, delusion, bizarre behaviour and Positive formal thought disorder separately for the subsample based on types of schizophrenia, sex, age, educational level and socio-economic background.

The main findings are:

1. Music therapy, in general, has relatively more favourable effect on negative symptoms as compared to positive symptoms (1st hypothesis).

2. Active music therapy and passive music therapy at times have different effects on different schizophrenic symptoms (2nd hypothesis).

3. Effect of music therapy varies with the type of schizophrenia. While there is no significant effect of music therapy in the case of paranoid type of schizophrenia, lot of significant effect was evident in the case of residual type of schizophrenia (3rd hypothesis).
4. Effect of music therapy is much more pervasive and encompassing in the case of female patients as compared to male patients.

5. Effect of music therapy varies with the level of education. Patients with primary education and high school education respond much better to music therapy as compared to more educated patients.

6. Patients belonging to lower socio-economic class as compared to middle and upper class respond better to music therapy, particularly to active music therapy.

7. Effect of music therapy does not vary with the age of the sample.