Research Article

INDIAN MUSIC THERAPY: COULD IT BE HELPFUL IN THE MANAGEMENT OF MENTAL DEPRESSION?

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ABSTRACT

The literature shows evidence that music is an effective means of aiding in treatment of mental depression. However, Indian classical music which has been widely used as an adjuvant therapy in mental depression lacks the scientific research to establish a proper area of medical treatment. Hence an attempt was made to study the effect of few selected ragas of Indian Classical Music on mental depression. The study was conducted on 40 clinically diagnosed mentally depressed patients, in the age group of 15- 45 years who were not undergoing any medical treatment. These patients were given music therapy for 45-60 minutes each day for a period of 15 days. Patients were analyzed based on the Goldberg questionnaire before and after the therapy. Clinically diagnosed severe depressive patients were excluded from the study. We found a profound decrease in the levels of depression in an individual, post-therapy, based on the Goldberg Depression Questionnaire scoring. The results showed, the significant difference in the pre-therapy to post-therapy score favoring a decrease in the level of depression (P < 0.0001). According to the Goldberg Depression Questionnaire, a 5 point change in the score is significant. Further studies based on biochemical parameters could show more accurate results in the future and effect of music therapy on other vital parameters of the body and experimenting with the variation in the effect in correlation with the type of music used could show great promise.

Keywords: Music therapy, Mental Depression, Indian Classical Music, Goldberg questionnaire

INTRODUCTION

A low mental state owing to anxiety, irritation, hopelessness, disinterest, loneliness is known as depression.[1] High stress levels, loss of loved ones, decreased social support, or traumatic incidences can be a few conditions that are expected to trigger depression. Though it is a highly underestimated condition, it slowly and thoroughly deteriorates one's quality of life and may even end tragically with suicide. A survey conducted by WHO where over 89,000 inhabitants were interviewed across 18 countries, states that, with 36% of its population being affected by it yearly, India surfaces as the world's most "depressed" country with a suicide rate of 10.5% which highlights the special attention required for depression in India. Despite the high prevalence of depression worldwide, only two-thirds of the population seek medical help.[1] In developing countries like India, where the rise in depression is believed to be due to the sudden and rapid change of lifestyles and families from joint to nuclear settings,

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such obstacles pose a great challenge and tackling this could bring down its associated mortality rates.

Music is a well known ancient method to heal various ailments; communicating a gush of emotions, energy and the ability to reach the soul. Music therapy provides a simple, cost effective and safe method to tackle mental depression. There are a few studies Workplaces, colleges, schools and other settings, which are a common source of depression can easily incorporate music into the ambience to reduce the level of work stress. Thus music therapy tackles the issues of social stigma, medication adverse effects and expenses, lack of psychiatric health care facilities and provides a means of prevention of depression.

METHODS AND MATERIALS

The present study was a cross sectional, experimental and qualitative study conducted on 40 clinically diagnosed mentally depressed patients within the age group of 15-45 years, who were not undergoing any medical treatment, with their consent, approval from institutional ethical committee at Mediciti Institute of Medical Sciences, Andhra Pradesh, and Student ICMR STS project (Reference Number 2011-01428). We used a self administered questionnaire-the Goldberg Depression Questionnaire (developed by American psychiatrist Ivan K. Goldberg contains 18 questions which cover various aspects of the patient's quality of life), as a means of assessing the levels of mental depression before and after the therapy. Clinically diagnosed severe depressive patients were excluded from the study. The subjects who had willfully participated in the study were subjected to approximately an hour of receptive music therapy in a common setting using various ragas from Indian Classical Music for fifteen days each. These ragas were selected on the basis of their exclusive use for mental depression by music therapy professionals and includes Raag Desh, Raag Brindavana Sarang, Raag Neelambari, Raag Bhoopali, Raag Hamsadhwani. The participants were allowed to lie down in any position comfortable to them with the only requirement being that they listen to the music in a relaxed position. The room for the therapy was arranged with a pleasing ambience with fresh flowers and sandalwood fragrance. The lights were dimmed down and made suitable for the participant to relax without any distraction. Participants were also provided with booklets to note down their day to day feedback on their experience for each day. After a period of fifteen days, the participants were asked to fill out the same questionnaire again to obtain the post-therapy score and the results of both pre-therapy and post-therapy were compared and analyzed using student t-test by SPSS software (version 17.0).

RESULTS
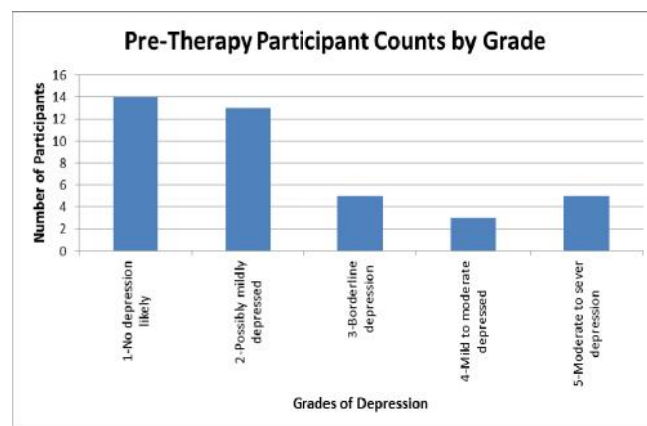
Fig 1: Pre-therapy participant counts by grade

*According to the Goldberg depression questionnaire score regime the 40 participants were divided into the following six groups score regmie
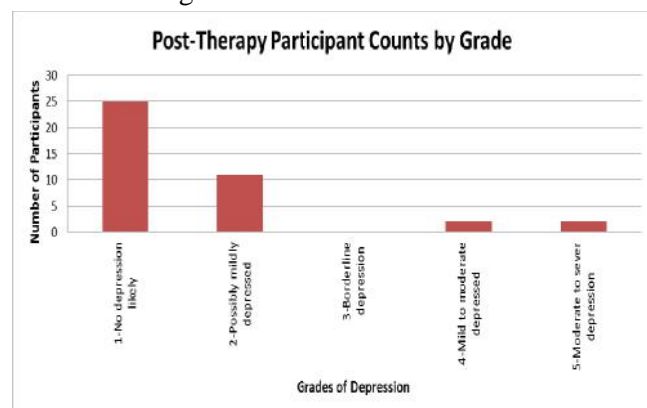Grade-1: 0-9 No Depression Likely
Grade-2: 10-17, Possibly Mildly Depressed
Grade-3: 18-21, Borderline Depression
Grade-4: 22-35, Mild-Moderate Depression
Grade-5: 36-53, Moderate-Severe Depression

On grouping, it was found that 14 subjects were included in "No depression likely", 13 subjects in "Possibly mild depression", 5 subjects fell in "Borderline depression", 3 in "Mild to Moderate depression" and 5 in "Moderate to severe depression" as shown in Fig 1.

Fig 2: Post-therapy participant counts by grade
Grade-1: 0-9 No Depression Likely

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Grade-2: 10-17, Possibly Mildly Depressed
Grade-3: 18-21, Borderline Depression
Grade-4: 22-35, Mild-Moderate Depression
Grade-5: 36-53, Moderate-Severe Depression
After the therapy, upon similar grouping, the number of subjects with "No depression likely" showed an increase to 25, those with "Possibly mild depression" were 11, and no one fell in "Borderline depression" and 2 subjects each in "Mild to moderate depression" and "Moderate to severe depression". Scores of individual subjects pre and post therapy is presented in Chart 2.

*Grouping of the subjects based on the above improvements according to Goldberg questionnaire.

Group A- No depression likely to No Depression likely

Group B- Possibly Mild Depression to No Depression likely

Group C- Mild/Moderate depression to No Depression

Group D- Possibly Mild Depression to Possibly Mild Depression

Group E- Borderline Depression to Possibly Mild Depression

Group F: Mild/Moderate Depression to Possibly Mild Depression

Group G- Moderate/Severe Depression to Possibly Mild Depression

Group H- Mild/Moderate Depression to Borderline Depression

Group I- Moderate/Severe Depression to Mild/Moderate Depression

Group J- Moderate/Severe Depression to Moderate/Severe Depression

Table 1: Grouping of the subjects based on the above improvements and averages of the pre-therapy and post-therapy scores in each group according to Goldberg depression questionnaire. (*P < 0.0001)

Group	Number (N=40)	Average Pre-Therapy	Average Post-Therapy
Group A	14	6.64	3.50
Group B	10	12.60	5.20
Group C	1	35.00	3.00
Group D	3	14.00	11.67
Group E	5	19.60	15.00
Group F	2	30.00	15.50
Group G	1	44.00	12.00
Group I	2	45.50	26.00
Group J	2	46.00	39.50
Mean		17.025*	9.700*

The mean values of the pre-therapy and post –therapy results of each group were analyzed and displayed in the table1. Thus the above values show that the average improvement of a subject, on undergoing music therapy is a least 4.93 points. And according to the Goldberg Depression Questionnaire, a change in 5 points is significant.
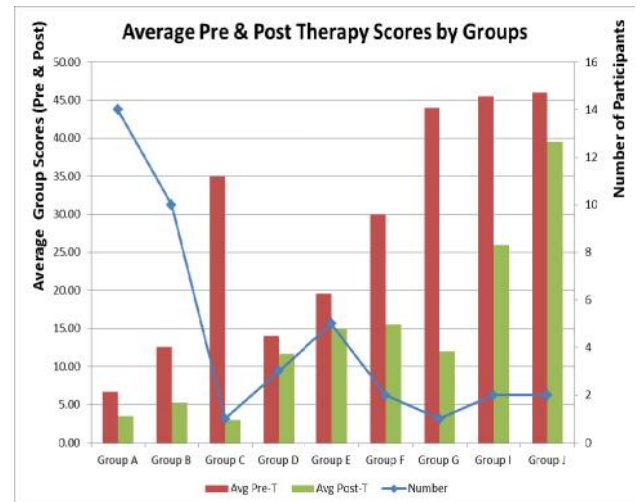
Fig 3: Average Pre and Post therapy scores of individual subjects by groups

We can appreciate the improvement in terms of scores, by comparing the pre-therapy mean value with the post-therapy mean value in each group shown in Fig 3.

DISCUSSION

In our study 40 subjects who underwent the therapy, all showed an improvement in their level of depression based on the comparison of their pre-therapy and post-therapy scores on the Goldberg Questionnaire. The results showed, a significant difference (P < 0.0001 t = 6.1812; df = 39). According to the Goldberg Depression Questionnaire, a 5 point change in the score is significant. The feedback given by the subjects also showed their self-satisfaction and improvement in various aspects, of which the most striking feature was improvement in the sleep habits, (peaceful sleep during the therapy and their ability to fall asleep faster at nights). The study, which was conducted by Bradt J et al, on 1891 mentally depressed patients with cancer showed an improvement in anxiety, mood and pain by music interventions when compared with the standard medical care [2]. In our study many subjects noted an increase in their energy levels and work productivity, while some even reported better emotional control

and anger management. However, the only Goldberg questionnaire was used to analyze the above effects. Hanser SB et al, also observed the same effect of music therapy on depressed older adults using Goldberg questionnaire [3]. Yet another study conducted by Field T, Fox NA et al, reported a direct impact of rock music on the brain [4,5]. The present study being a questionnaire based study, the results collected could show variation from time to time and perhaps further biochemical investigations such as serum cortisol, etc; may provide us with more accurate data. Due to the limitation in the time period, it can be assumed that the effects of the therapy may be more beneficial if the time period was prolonged. Though the opportunity to undergo the therapy was open to a wide population of people, only a smaller fraction of the participants turned out to have noticeable depression. Perhaps the social stigma or lack of interest which is holding back patients with depression to seek medical attention in society was the same contributing factor. Music therapy is cost effective and safe home based method. Increasing the awareness about this simple means of treatment may help tackle issues (social stigma) and act as a means of reaching out to such individuals.

CONCLUSION

From the above data it is clear that the hypothesized result has been obtained from this study. Every participant showed a significant improvement in their level of depression. Hence, in can be concluded that music therapy with Indian classical music definitely has a positive effect on the mind. Music therapy is an upcoming field in health care which deserves attention and adequate research as it proves to show great potential. It is a means of promoting the healthy mental status and preventing depression in a safe and easy manner. Indian classical music further is an interesting topic of research as it follows a systematic and scientific pattern and it's correlation with the functioning of the brain could provide us with new possibilities in the area of music therapy.

ACKNOWLEDGMENT

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