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## Summary and Conclusion

This study entitled, “**Efficacy of Carnatic Music Therapy and Pranayama for Managing Depression**” intended to explore the efficacy of Carnatic Music Therapy and Pranayama as alternative interventions added to standard care in the management of depression and also improving the resilience and self-esteem among people with mild level of depression.

This chapter presents the summary of the investigation, the key findings, conclusions and implications of the study. It also lists the limitations of the present study and scope of future research.

### OBJECTIVES

- To find out the relationship between depression, resilience and self-esteem in people with mild level of depression.
- To identify the level of depression in the sample.
- To identify the level of resilience in people with mild level of depression.
- To identify the level of self-esteem in people with mild level of depression.
- To identify the effectiveness of Carnatic music therapy in managing depression.
- To identify the effectiveness of Pranayama in managing depression.
- To identify the effectiveness of Carnatic music therapy and Pranayama in managing depression.
- To identify the effectiveness of Carnatic music therapy in enhancing resilience and self-esteem among people with mild level of depression.
- To identify the effectiveness of Pranayama in enhancing resilience and self-esteem among people with mild level of depression.
- To identify the effectiveness of Carnatic music therapy and Pranayama in enhancing resilience and self-esteem among people with mild level of depression.

## **HYPOTHESES**

1. There will be a significant relationship between depression, resilience and self-esteem in people with mild level of depression.
2. There will be a significant reduction in the level of depression after the intervention of Carnatic music therapy among people with mild level of depression.
3. There will be a significant improvement in the level of resilience after the intervention of Carnatic music therapy among people with mild level of depression.
4. There will be a significant improvement in the level of self-esteem after the intervention of Carnatic music therapy among people with mild level of depression.
5. There will be a significant reduction in the level of depression after the intervention of Pranayama among people with mild level of depression.
6. There will be a significant improvement in the level of resilience after the intervention of Pranayama among people with mild level of depression.
7. There will be a significant improvement in the level of self-esteem after the intervention of Pranayama among people with mild level of depression.
8. There will be a significant reduction in the level of depression after the intervention of Carnatic music therapy and Pranayama among people with mild level of depression.
9. There will be a significant improvement in the level of resilience after the intervention of Carnatic music therapy and Pranayama among people with mild level of depression.
10. There will be a significant improvement in the level of self-esteem after the intervention of Carnatic music therapy and Pranayama among people with mild level of depression.

11. There will be a significant difference in the level of depression between Before, After and Follow-up periods in the control group.
12. There will be a significant difference in the level of resilience between Before, After and Follow-up periods in the control group.
13. There will be a significant difference in the level of self-esteem between Before, After and Follow-up periods in the control group.

### **Method**

This study followed Pretest posttest follow-up with control group design. A total sample of 120 people with mild level of depression was selected for the study and was randomly assigned to four groups. Carnatic Music Therapy (CMT) group, Pranayama group, Carnatic Music Therapy and Pranayama (combined) group and control group are the four groups in the study. The four groups were assessed at three points of time, pretest phase, post test phase, immediately after the intervention and follow-up phase, three months after the intervention was withdrawn.

The sample consisted of 120 adults with mild level of unipolar depression ranging from 18 to 45 years of age. The sample was selected using Purposive sampling technique. Thirty samples each were randomly allocated to four different groups of intervention; CMT with Standard care (n=30); Pranayama with standard care (n=30); CMT and Pranayama with standard care (n=30) and control group, standard care only (n=30).

### **Tools**

- Personal data sheet was used to collect the demographic details of the sample.
- The Beck's Depression Inventory (BDI) developed by Aaron Beck was used to measure the level of depression in the sample.
- Bharathiar University Resilience Scale (BURS) (Form A). The BURS (Form A), a self-reporting scale consisting of 30 items, developed by Annalakshmi, was used to assess the level of resilience.
- Rosenberg's Self-esteem Scale, a uni-dimensional, 10-item scale that measures global self-worth by measuring both positive and negative feelings about the self was used to measure the level of self-esteem in the sample.

## **Intervention**

The interventions used in this study included two components such as Carnatic Music Therapy and Anuloma Viloma Pranayama.

Carnatic Music Therapy (CMT): CMT is a type of Receptive music therapy technique' used in an individual (therapist-client) setting. This Music Therapy is developed by the researcher using five Carnatic Music Ragas namely Atana, Kanada, Mohanam, Revagupthi and Neelambari. Passive listening to recorded Instrumental flute music in the five ragas were used in the intervention. The basic aim of the intervention is to encourage and engage clients in deeper understanding of the self and making effective expression of their emotions and verbal interaction with the help of music.

Anuloma Viloma Pranayama: Anuloma Viloma is a mental adaptation of Nadi Shodhana Pranayama in Pathanjali's yoga sutra. This Pranayama was developed by Maharishi Pathanjali. This technique can be practiced in one's daily sadhana. It has a calming effect on the nervous system, and can be practiced in stressful situations. The autonomic nervous system is stimulated and relaxed by this practice. It is an on-the-spot tranquilizer, which also promotes clarity of mind and awareness, without adverse side effects.

Four intervention groups were as follows:

Group 1: Carnatic Music Therapy with Standard care

Group 2: Pranayama with standard care

Group 3: Carnatic Music Therapy and Pranayama with standard care

Group 4: Control, Standard care only

## **Analysis**

The study was intended to examine the effectiveness of the Carnatic Music Therapy and Pranayama interventions on different factors under investigation like depression, resilience and self-esteem over three phases: pre intervention, post intervention and three months delayed follow-up.

Firstly, the demographic details of the sample were constructed and explained. The homogeneity of the sample was tested using Chi-square test of homogeneity.

Then correlation was calculated in order to find out whether there exist any relationship between the variables under investigation in the pre intervention data.

Comparison of pre intervention, post intervention and follow-up scores was done using one-way ANOVA for each level of one factor. Further, Duncan's post hoc analysis was used for the between subjects comparison. The results of ANOVA and post hoc analysis were further illustrated using the line graphs to present a clear picture of the levels of variables for different categories at different points of time. Comparison of mean differences of different factors in three phases in the four intervention groups was done in order to compare the effectiveness of the interventions.

### **Findings**

The findings of this study indicated that the multiple interventions aimed at mitigating depression and enhancing resilience and self-esteem among people with mild level of depression was successful in achieving the proposed intent.

The level of depression among people with mild level of depression significantly reduced in response to all the three interventions CMT, Pranayama and CMT and Pranayama (combined) from the pretest to post test phase. And it was found to be further reduced in the follow-up phase.

The two intervention groups-CMT, CMT-Pranayama had shown significant effect in enhancing the resilience of people with mild level of depression. But the intervention of Pranayama couldn't make any significant change in the level of resilience. The results indicated that the intervention that included music had a better impact on enhancing the resilience of people with mild level of depression.

CMT and CMT-Pranayama groups showed significant effectiveness in enhancing the level of self-esteem in people with mild level of depression. But Pranayama alone was not significantly effective in enhancing the self-esteem in the sample.

The components of the intervention module; CMT and AnulomaViloma Pranayama have facilitated the people with mild level of depression to reduce their level of depression. Further, it also enhanced the level of resilience and self-esteem in the sample.

## **Conclusion**

Based on the results of the study and its key findings, it would be appropriate to arrive at reasonable conclusion regarding the effectiveness of the interventions in people with mild level of depression.

From the study findings, it can be concluded that

- The CMT was effective in making a reduction in the level of depression in people with mild level of depression.
- The CMT was effective in increasing the level of resilience and self-esteem in people with mild level of depression.
- Pranayama was effective in making a reduction in the level of depression in people with mild level of depression.
- Pranayama intervention showed no significant effect in improving the resilience of people with mild level of depression.
- Pranayama intervention showed no significant effect in improving the self-esteem of people with mild level of depression.
- The intervention of CMT and Pranayama (combined) was found to be effective in making a reduction in the level of depression in people with mild level of depression.
- The CMT and Pranayama (combined) intervention was effective in increasing the level of resilience and self-esteem in people with mild level of depression.

The interventions in this study have proved its effectiveness in the management of depression. When the three interventions were compared, all the three were capable of reducing the level of depression remarkably in the sample which was the prime aim of the study. But the impact of the interventions on the variables resilience and self-esteem were different. CMT and CMT-Pranayama (combined) interventions have shown its effectiveness in improving resilience and self-esteem, while Pranayama alone could not make any significant improvement on the level of resilience and self-esteem.

## **Implications**

This study which is intended to develop a therapy module using two resources based on Indian culture and tradition which are Carnatic music and Pranayama, has a very significant implication in the area of mental health.

The basic aim of the study was to analyze the effectiveness of Carnatic Music Therapy (CMT) and Pranayama in treating depression which was successfully achieved in this study. And the study has the following specific implications:

1. The interventions CMT and Pranayama have helped people with mild level of depression to manage their negative emotions and low mood associated with their disorder.
2. The CMT has a remarkable influence in enhancing their capability to recoup from stresses and also in regaining their self-esteem through self-exploration with the help of music.
3. The results of this study has opened up a wider window for the therapists in understanding the efficacy of traditional and culture based treatment techniques in curing mental illnesses.
4. The interventions were not only giving an immediate effect in the treatment of depression but also in the follow-up phase which indicates its capability of making a long term effect.
5. The present study supports and further clarifies earlier clinical findings that suggested Music Therapy has specific qualities which enable meaningful non-verbal expression of the inner experiences. It helped the client in fully experiencing and expressing the emotions and eventually verbalizing the emotions.
6. CMT and Pranayama have helped people with mild level of depression to gain insights into various aspects of their psychopathology.
7. The low drop-out rate was considered as a notable positive aspect of CMT and Pranayama interventions.

8. The bi-weekly scheduling of sessions increased the intensity of the therapy which contributed to positive outcome of the study.
9. The trend towards a reduction in depression level even in the 3months follow-up is an interesting finding of this study.

### **Limitations**

The limitations of the study have to be listed so that the reader can interpret the results considering those limitations. They are as follows:

1. The study included only mild level of unipolar depression in the sample. Including moderate and severe levels would have enhanced the generalizability of the study.
2. The study utilized only five Carnatic Music Ragas for the intervention. There are many more Ragas in Carnatic Music that can be utilized.
3. The geographical area of the sample is restricted to one state, Kerala. Including other states would enable more generalizability of the results.

### **Recommendations**

1. CMT and Pranayama could be recommended as an adjunct to the standard care given for depression.
2. CMT could be strongly recommended as a therapy for enhancing resilience and self-esteem.
3. The effect of the interventions of CMT and Pranayama can be further studied in other psychological disorders also.
4. The role of CMT and Pranayama in improving cognitive abilities, emotional balancing, enhancing personal and social skills in children as well as normal population can be further explored.
5. CMT utilizing various other Ragas can be studied for its effectiveness in various psychological disorders.
6. The effect of CMT and Pranayama interventions in geriatric population in managing their various mental health issues can also be further explored.