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Results and Discussion

The present study on "Efficacy of Carnatic Music Therapy and Pranayama for managing Depression" was conducted among 120 people with mild level of depression. The sample was collected from an outpatient clinic, "Innervision", Thrissur, Kerala. Persons with mild level of depression were selected as sample by Purposive sampling. The samples were first screened for mild depression using Beck's Depression Inventory. The data were collected using a Personal Data Sheet, Beck's Depression Inventory, Rosenberg's Self-Esteem Scale and Bharathiar University Resilience Scale (BURS) (Form A).

The purpose of the study was to assess the level of depression, resilience and self-esteem among people with mild level of depression. The study also assessed the effectiveness of the interventions, Carnatic Music Therapy and Pranayama, on the sample. Demographic variables such as Age, Gender, Socioeconomic Status, Type of Residence, Marital Status,and Work Status were collected. The homogeneity of the sample was tested using Chi-square test.

The samples were first assessed for level of Depression, Self-esteem and Resilience by using Beck's Depression Inventory, Rosenberg's Self-Esteem Scale and Bharathiar University Resilience Scale (BURS) (Form A) respectively before the intervention. They were reassessed for the level of Depression, Self-esteem and Resilience using the same tools, immediately after the 20 sessions of intervention. The follow-up was done after three months of completion of the intervention. The results of the study was analyzed, tabulated and discussed in the following session.

TABLE 2

DISTRIBUTION OF SAMPLE BASED ON THE DEMOGRAPHIC VARIABLES

DEMOGRAPHIC VARIABLE	CATAGORY	SAMPLE SIZE	PERCENTAGE (%)
AGE	18-25 YEARS	43	36
	26-30 YEARS	40	33
	31-45 YEARS	37	31
GENDER	MALE	62	51
	FEMALE	58	49
SOCIOECONOMIC STATUS	LOW	39	33
	MEDIUM	46	38
	HIGH	35	29
MARITAL STATUS	MARRIED	65	54
	UNMARRIED	55	46
OCCUPATIONAL STATUS	WORKING	61	49
	NOT WORKING	59	51
TYPE OF RESIDENCE	RURAL	61	51
	URBAN	59	49

Table 2 shows the distribution of sample based on Age, Gender, Socioeconomic Status, Marital status, Occupational status and Type of Residence. In the table the distribution of the sample in various age groups were indicated. There were three age groups 18-25 years, 26-30 years and 31-40 years and the sample size in each group were 43, 40 and 37 respectively. This shows that 36 percentage of sample were in the age group 18- 25 years, 33 percentage were in the 26-30 years group and 31 percentage were in the 30-45 years age group. This indicates that the rate of depression is higher in the age group 18-25 years in the sample, when compared to the other two groups. The gender distribution shows that there were 62 Males and 58 Females included in the sample indicating an equal representation of Male and Female persons in the sample. The

distribution of sample based on Socioeconomic Status shows that 38 percentage of the sample falls in the medium socioeconomic status category, 33 percentage were in the low socioeconomic level and 29 percentage were in the high socioeconomic category. So it indicates that maximum number of persons with mild depression in this study was seen in the medium socioeconomic level.

The distribution of sample based on marital status showed that 54 percentage of the sample were married people and 46 percentage were unmarried people. This indicates that the prevalence of mild depression is a little higher in the married group than the unmarried group. The distribution of sample based on occupational status shows an equal representation of working and non-working people.The distribution of sample based on type of residence (rural/urban) also indicated that the sample has an equal representation of both the groups.

TABLE 3: CHI-SQUARE TEST OF HOMOGENEITY OF THE SAMPLE

	AGE	GENDER	OCC.ST	TR	SES	MARITAL STATUS
CHI-SQUARE	0.45	0.13	0.03	0.03	1.55	0.83
df	2	1	1	1	2	1
SIG.	0.79(NS)	0.72(NS)	0.86(NS)	0.86(NS)	0.46(NS)	0.36(NS)

NS – Not significant

To further test the homogeneity of the sample, Chi-square test of homogeneity was done.Table 3 shows the results of Chi-square test of homogeneity of the sample on various demographic variables. The results indicated that there is no significant difference found in the sample on the demographic variables of Age, Gender, Socioeconomic Status, Marital status, Occupational status and Type of Residence. Therefore it can be inferred that the sample of 120 people with mild level of depression were found to be homogenous with reference to the demographic variables like Age, Gender, Socioeconomic Status, Marital status, Occupational status and Type of Residence.

TABLE 4 : CORRELATION BETWEEN DEPRESSION, RESILIENCE AND SELF-ESTEEM IN THE SAMPLE

PEARSON CORRELATIONS	DEPRESSION	RESILIENCE	SELF-ESTEEM
DEPRESSION	-	-0.063 (NS)	-0.110 (NS)
RESILIENCE	-0.063 (NS)	-	0.101 (NS)
SELF-ESTEEM	-0.110 (NS)	0.101 (NS)	-

NS – Not significant

The relationship between Depression, Resilience and Self-esteem among the sample is calculated in the table 4. The table indicates that there is no significant correlation found between the three variables. Thus the Alternative Hypothesis 1 "There will be a significant relationship between Depression, Resilience and Self-esteem in people with mild level of depression" is rejected. In some of the previous research studies related to Depression, Resilience and Self-esteem, a moderating effect of Resilience and Self-esteem on Depression was shown and not a direct correlation. Chih-Che Lin (2015) examined both the mediation effects of self-esteem and psychological well-being for the relationship between gratitude and depression in late adolescence. The study included measures of gratitude, self-esteem, psychological well-being, and depression. Path analyses results indicated that self-esteem and psychological well-being acted as mediators in the association between gratitude and depression. The identified model in the study also revealed a significant path from gratitude through self-esteem and psychological well-being to depression.

Findings from another study done by Le et.al. (2015) for understanding the interrelations among social support, resilience, and geriatric depression substantiate the mediating effect of resilience. The results of the study indicated a significant indirect effect of social support on geriatric depression through the mediation of resilience,

by controlling demographic variables. An identical influencing pattern between problem-solving resilience and emotion regulation resilience were also found in the study suggesting a similar mediation role in linking social support and geriatric depression.

Though the relationship between the three variables, depression, resilience and self-esteem, is statistically insignificant, the scores give some information about the direction of relationship. The correlation between depression and resilience is found to be -.063 which means that they are inversely proportional. When depression increases, the resilience scores gets decreased. Depression and self-esteem also shows a negative relationship which means that when the score of depression is increased, the self-esteem will get decreased. The correlation scores between resilience and self-esteem is 0.110 which is a positive score showing that they are directly proportional which indicates that when the score of resilience increases, the score of self-esteem also increases.

TABLE 5: MEAN AND SD OF LEVEL OF DEPRESSION IN CARNATIC MUSIC THERAPY GROUP

DEPRESSION	BEFORE		AFTER		FOLLOW-UP	
	MEAN	SD	MEAN	SD	MEAN	SD
	16.30	1.58	12.37	1.92	11.57	1.85

Table 5 shows the Mean and SD of Depression during Before, After and Follow-up period of Carnatic Music Therapy (CMT) intervention among the sample. The mean of Depression before the intervention of CMT was 16.3, after the intervention it reduced to 12.37 and during the follow-up phase the mean score further reduced to 11.57 which is a very positive change that shows the effectiveness of CMT as an intervention. The treatment effect was maintained even in the follow-up phase which may be due to the participant's strong compliance to the CMT. The treatment effect would have further motivated the participants to continue the therapy resulting in reduction of the level of depression in the follow-up.

TABLE 6: F-VALUE FOR DEPRESSION IN CARNATIC MUSIC THERAPY GROUP

DEPRESSION	SUM OF SQUARES	DEGREE OF FREEDOM	MEAN SQUARES	F
BETWEEN GROUP	16187.21	1	16187.21	60.13*
WITHIN GROUP	385.156	2	192.578	

*significant at 0.01 level

Table 6 shows the ANOVA results of Depression among the subjects during Before, After and Follow-up period of CMT intervention. The F-value was found to be 60.13 which indicates that there is a significant difference in the level of Depression between the three phases of the study, which are Before, After and Follow-up, in people with mild level of depression. The significant difference is attributed to the effect of CMT intervention.

TABLE 7: POST HOC ANALYSIS OF DEPRESSION IN CARNATIC MUSIC THERAPY GROUP

	DEPRESSION (mean)	BEFORE	AFTER	FOLLOW-UP
BEFORE	16.30	_	**	**
AFTER	12.37	**	_	-
FOLLOW-UP	11.57	**	-	_

**significant at 0.01 level

FIGURE 1: LEVEL OF DEPRESSION AMONG THE SAMPLE DURING BEFORE, AFTER AND FOLLOW-UP OF CARNATIC MUSIC THERAPY

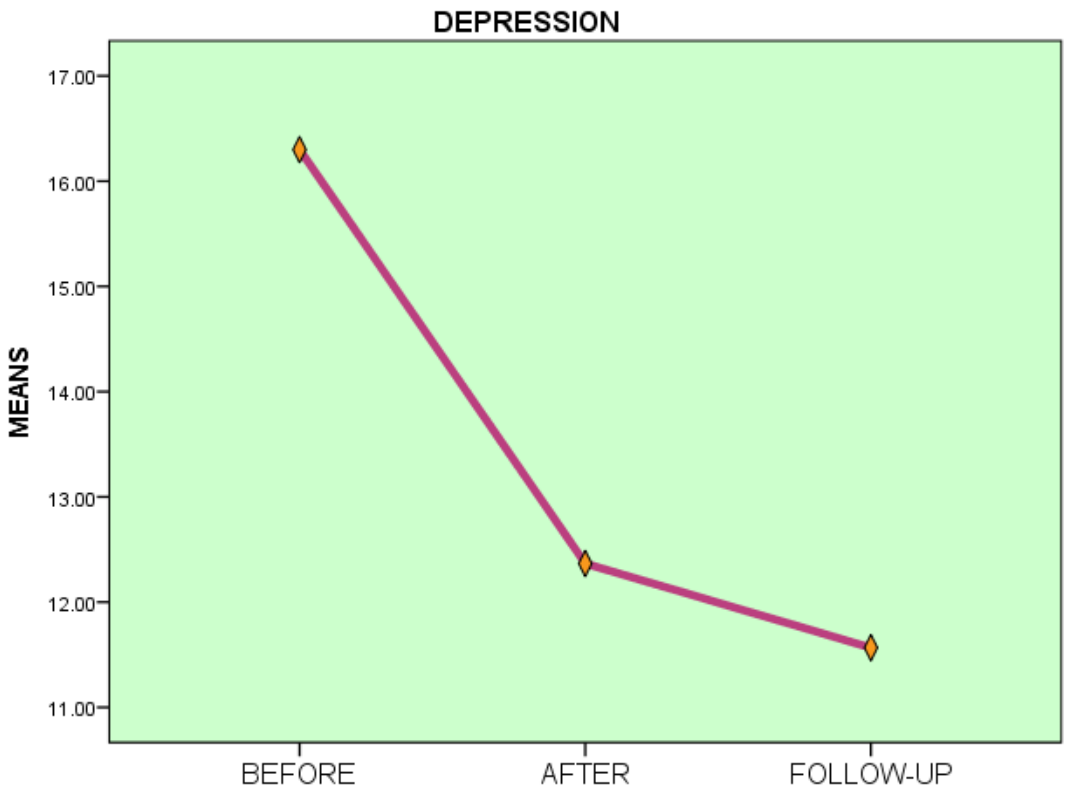


Table 7 shows the Post-Hoc analysis of depression which indicates a reduction in the level of depression among the sample during the Before, After and Follow-up period of CMT intervention. The Duncan's Post-Hoc analysis shows a significant difference between Before, After and Follow-up scores which is illustrated in the figure 1. The result indicates that the CMT has helped them to deal with their low mood and other symptoms of Depression effectively which lead to the reduction in the Depression scores in the sample. The scores were seen to be reduced further in the Follow-up period which shows that the participants continued to find solace from the Ragas. Hence, Alternate Hypothesis 2 "There will be a significant reduction in the level of depression after the intervention of Carnatic music therapy" is accepted.

TABLE 8: COMPARISON OF MEAN DIFFERENCE OF DEPRESSION IN CARNATIC MUSIC THERAPY GROUP

GROUP	MEAN DIFFERENCE	SIG.
BEFORE-AFTER	3.93*	0.000
BEFORE-FOLLOW-UP	4.73*	0.000
AFTER-FOLLOW-UP	0.80	0.285

*significant at 0.01 level

The results of Table 8 indicates that there were significant difference among the two phases of testing:before(pre-test)to after(post-test)and before (pre-test) to follow-up phase, in the level of Depression. But the mean difference is not significant in the after to follow-up phase. This means that the level of Depression reduced remarkably after the intervention of Carnatic music therapy. The level of Depression was seen to be more or less maintained during the follow-up period.

Music is a fundamental aspect of human experience, strongly connected to our "intrinsic motive" systems which is deeply ingrained in all cultures (Malloch and Tresarthus, 2009). Studies show that music is capable of alleviating feelings of stress, distress and depressive affects. Music stimulations can counteract negative cognitions

like feelings of helplessness, hopelessness and stress. Music, through its emotional power has a high level of influence on the diverse brain chemistry and network activities (Bernatzky et.al., 2011). These research reviews are in par with the results of this study proving the efficacy of music in mitigating depression.

In the present study, receptive aspects of Music therapy are used. The musical pieces, Carnatic Music Ragas, are arranged in such a manner to bring about a gradual progression towards goal achievement through altering the mood and thought pattern of people with depression. The music has helped them to arouse specific emotions which in turn allowed them to more clearly access, recall and interrogate memories and thoughts with the goal of identifying them and understanding the meaning of those thoughts and memories in relation to their current circumstances. Listening to the Ragas has helped them to wake up and identify their own feelings and do a catharsis of their negative feelings. Passive listening to ragas like Mohanam has helped to bring out positive thoughts and memories and a complete state of relaxation and a feeling of safety and security, especially when it ends with Raga Neelambari. As reviewed in various studies, the overall benefits of music in the treatment of depression are reasonably consistent, with larger effects with longer courses of treatment (Gold et.al, 2006). The same has been proved in this study also which showed a very remarkable reduction in the level of depression after the intervention of CMT and even at the follow-up phase.

Musical elements like pitch, tone etc. are capable of bringing out somewhat predictable changes even in the cardio-respiratory variables. The subjective effects of music have demonstrated physical as well as emotional effects, mediated through the brain (Bernatzky et.al, 2011). When the capacity of music in influencing bodily mechanisms, mental disorders and pain management were studied, several regions of limbic and Para limbic systems (Autonomic Nervous System), which are the centers of affective pain showed notable changes associated with listening to music (Blood et. al, 1999). Even novel musical stimuli, heard for the first time, even without any specific therapeutic goal was able to elicit strong positive feeling and limbic activation. (Brown et.al, 2014). All these studies strongly support the results of the present study advocating CMT as an effective intervention in managing depression.

TABLE 9: MEAN AND SD OF LEVEL OF RESILIENCE IN CARNATIC MUSIC THERAPY GROUP

	BEFORE		AFTER		FOLLOW-UP	
RESILIENCE	MEAN	SD	MEAN	SD	MEAN	SD
	78.33	18.67	90.27	14.91	94.30	15.28

Table 9 shows the Mean and SD of Resilience during Before, After and Follow-up period of CMT intervention among the sample. The mean of Resilience before CMT was 78.33, after CMT it increased to 90.27 and during the follow-up phase the mean score further improved to 94.30. The high effectiveness of intervention of CMT is evident in the result. The score was even further improved in the follow-up phase.

TABLE 10: F-VALUE FOR RESILIENCE IN CARNATIC MUSIC THERAPY GROUP

RESILIENCE	SUM OF SQUARES	DEGREE OF FREEDOM	MEAN SQUARES	F
BETWEEN GROUP	691164.10	1	691164.10	7.71*
WITHIN GROUP	4136.O7	2	2068.03	

*significant at 0.01 level

Table 10 shows the ANOVA results of the Resilience among the sample during Before, After and Follow-up period of CMT intervention. The F-value was found to be 7.71 which indicates that there is a significant difference in the level of Resilience between the Before, After and Follow-up group in the sample. The significant difference is attributed to the effect of the intervention.

TABLE 11: POST HOC ANALYSIS OF RESILIENCE IN CARNATIC MUSIC THERAPY GROUP

	RESILIENCE	BEFORE	AFTER	FOLLOW-UP
BEFORE	78.33	_	**	**
AFTER	90.27	**	_	-
FOLLOW-UP	94.30	**	-	_

**significant at 0.01 level

FIGURE 2: LEVEL OF RESILIENCE AMONG THE SAMPLE DURING BEFORE, AFTER AND FOLLOW-UP OF CARNATIC MUSIC THERAPY

The Post-Hoc analysisfor Resilience and illustration figure 2 indicates a good improvement in the levelof Resilience among the sample during the Before, After and Follow-up periods of CMT intervention. The result indicates that there is an increase in the level of Resilience among people with mild level of depression. The CMT has helped them to keep their mind relaxed and balanced. This has made them improve their capacity to cope up with the stresses more effectivelywhich lead to the improvement in their Resilience scores. The scores were seen to be improved further in the Follow-up period which shows that the participants continued to listen to the RAGA module and followed the therapy at home. Hence, Alternate Hypothesis 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" is accepted.

TABLE 12: COMPARISON OF MEAN DIFFERENCE OF RESILIENCE IN CARNATIC MUSIC THERAPY GROUP

GROUP	MEAN DIFFERENCE	SIG.
BEFORE-AFTER	11.93*	0.025
BEFORE-FOLLOW-UP	15.97*	0.002
AFTER-FOLLOW-UP	4.03	0.664

*significant at 0.01 level

The results of Table 12 indicates that there was significant difference in the level of Resilience from before to after (pre-test to post-test) and before to follow-up phase. But the mean difference is not significant in the after to follow-up phase. This means that the level of Resilience improved remarkably after the intervention of CMT. The level of Resilience was more or less maintained during the follow-up period.

Resilience is the internal psychological construct which is a strong protective factor of the mind. It refers to a set of both state and trait characteristic that protects human mind from stress and foster adaptation. Southwick et.al (2014), suggests that resilience is a combination of both neurological (serotonin, neuropeptide Y, dopamine) and psychological factors (positive emotions and optimism, humor, cognitive flexibility,

acceptance, religion/spirituality, altruism, social support, coping style and stress inoculation). In the present study, resilience score improved after the intervention of CMT. Music has the capacity to balance Autonomic Nervous System (ANS) and thereby giving relaxation and calmness for the mind. When the Central Nervous System is in a balanced state, neurotransmitters will be in the proper proportion. Then the mind becomes more flexible, capable of clear thinking and problem solving. So in this study, when CMT was given for the sample, they were gradually brought back to normal mood and slowly they were able to realize and accept their own problems and experience a positivity and clarity which helped them to improve their resilience. Longer duration of CMT has influenced the mind to regain its balanced state which led to their better coping.

TABLE 13: MEAN AND SD OF LEVEL OF SELF-ESTEEM IN CARNATIC MUSIC THERAPY GROUP

	BEFORE		**AFTER**		**FOLLOW-UP**	
SELF-ESTEEM	**MEAN**	**SD**	**MEAN**	**SD**	**MEAN**	**SD**
	20.10	6.08	23.87	6.39	25.13	6.24

Table 13 shows the Mean and SD of Self-esteem during Before, After and Follow-up period of CMT intervention among the sample. The mean of Self-esteembefore CMT was 20.10, after CMT it increased to 23.87 and during the follow-up phase the mean scoreimproved to 25.13. This shows a very positive sign and the high effectiveness of intervention. The score was further improved in the follow-up phase which may be due to the participant's sustained interest in doing the CMT therapy. The treatment effect might have motivated the participant to continue the therapy at home which further enhanced self-esteem in the follow-up period.

TABLE 14: F-VALUE FOR SELF-ESTEEM IN CARNATIC MUSIC THERAPY GROUP

SELF-ESTEEM	SUM OF SQUARES	DEGREE OF FREEDOM	MEAN SQUARES	F
BETWEEN GROUP	47748.10	1	47748.10	5.28*
WITHIN GROUP	411.27	2	205.63	

*significant at 0.01 level

Table 14shows the ANOVA results of Self-esteem among the sample during Before, After and Follow-up period of CMT intervention. The F-value was found to be 5.28 which indicates that there is a significant difference in the level of Self-esteembetween the Before, After and Follow-up phases in the sample. The results prove that CMT intervention was effective in improving self-esteem in the sample.

TABLE 15: POST HOC ANALYSIS OF SELF-ESTEEM IN CARNATIC MUSIC THERAPY GROUP

	SELF-ESTEEM	BEFORE	AFTER	FOLLOW-UP
BEFORE	20.10	_	_	**
AFTER	23.87	_	_	-
FOLLOW-UP	25.13	**	-	-

**significant at 0.01 level

FIGURE 3: LEVEL OF SELF-ESTEEM AMONG THE SAMPLE DURING BEFORE, AFTER AND FOLLOW-UP OF CARNATIC MUSIC THERAPY

Table 15 shows the Post-Hoc analysis forSelf-esteem which is illustrated in figure 4. The results indicate a good improvement in the level of Self-esteem among the sample during the Before, After and Follow-up period of CMT intervention. The Duncan's Post-Hoc analysis shows a significant difference between Before, After and Follow-up scores. The intervention of CMT has helped them to keep their mind balanced and manage their emotions effectively. This has made them more confident about themselves and deal with situations more effectively which lead to the improvement in the Self-esteem scores in the sample. The scores were seen to be improved further in the Follow-up period which shows that the effect continued to have an impact on the self-esteem of the sample even after the intervention was stopped. Hence, Alternate Hypothesis 4 "There will be significant improvement in the level of self-esteem after the intervention of Carnatic music therapy among people with mild level of depression" is accepted.

TABLE 16: COMPARISON OF MEAN DIFFERENCE OF SELF-ESTEEM IN CARNATIC MUSIC THERAPY GROUP

GROUP	MEAN DIFFERENCE	SIG.
BEFORE-AFTER	3.77	0.067
BEFORE-FOLLOW-UP	5.03*	0.007
AFTER-FOLLOW-UP	1.27	0.825

*significant at 0.01 level

Table 16 indicates that there were significant differences in the level of Self-esteem in the before (pre-test) to follow-up phase. But the mean difference is not significant in the before to after, and after to follow-up phase. This means that though the effect was not seen immediately after the intervention, the level of Self-esteem has improved remarkably when assessed in the follow-up phase.

Self-esteem is a basic human need, the need for respect from others, and the need for self-respect. It can be defined as how favorably a person evaluates himself or herself in consideration of social acceptance (Wang et.al, 2009). In the present study, sample being people with mild depression, their self-esteem level was found to be low before the intervention. But after the intervention, the self-esteem seemed to have remarkably improved. It can be inferred that music has influenced their thinking pattern and self-

evaluations. Generally people with depression experience a low self-worth and a very negative thinking. They always tend to give negative statements about themselves. The CMT intervention helped the sample to reframe their negative self-statements to positive ones and thereby increasing their confidence. Ragas Mohanam and Revagupthi has especially helped to increase positive thinking. These ragas have brought a very pleasant feeling in their mind and helped to recall their positive memories which strengthened their self-acceptance. These changes have helped them to improve their overall self-esteem.

TABLE 17: MEAN AND SD OF LEVEL OF DEPRESSION IN PRANAYAMA GROUP

	BEFORE		AFTER		FOLLOW-UP	
DEPRESSION	MEAN	SD	MEAN	SD	MEAN	SD
	16.10	1.58	14.20	2.01	12.96	2.23

Table 17 shows the Mean and SD of Depression during Before, After and Follow-up period of intervention of Pranayama among the sample. The mean of Depression before the intervention of Pranayama was 16.10, after Pranayama it reduced to 14.20 and during the follow-up phase the mean score further reduced to 12.96 which is a positive change that shows the effectiveness of intervention. The treatment effect was maintained even in the follow-up phase which may be due to the participant's strong compliance to the therapy. The treatment effect was shown to have longer effect which is evident in the better result seen in the follow-up period.

TABLE 18: F-VALUE FOR DEPRESSION IN PRANAYAMA GROUP

DEPRESSION	SUM OF SQUARES	DEGREE OF FREEDOM	MEAN SQUARES	F
BETWEEN GROUP	18720.04	1	18720.04	19.44*
WITHIN GROUP	149.48	2	74.74	

*significant at 0.01 level

In table 18, the ANOVA results of Depression among the sample during Before, After and Follow-up period of Pranayama intervention, are given. The F-value was found to be 19.44 which indicated that there is a significant difference in the level of Depression between the Before, After and Follow-up phases of intervention.

TABLE 19: POST HOC ANALYSIS FOR DEPRESSION IN PRANAYAMA GROUP

	DEPRESSION	BEFORE	AFTER	FOLLOW-UP
BEFORE	16.10	_	**	**
AFTER	14.20	**	_	-
FOLLOW-UP	12.97	**	-	_

**significant at 0.01 level

FIGURE 4: LEVEL OF DEPRESSION AMONG THE SAMPLE DURING BEFORE, AFTER AND FOLLOW-UP OF PRANAYAMA

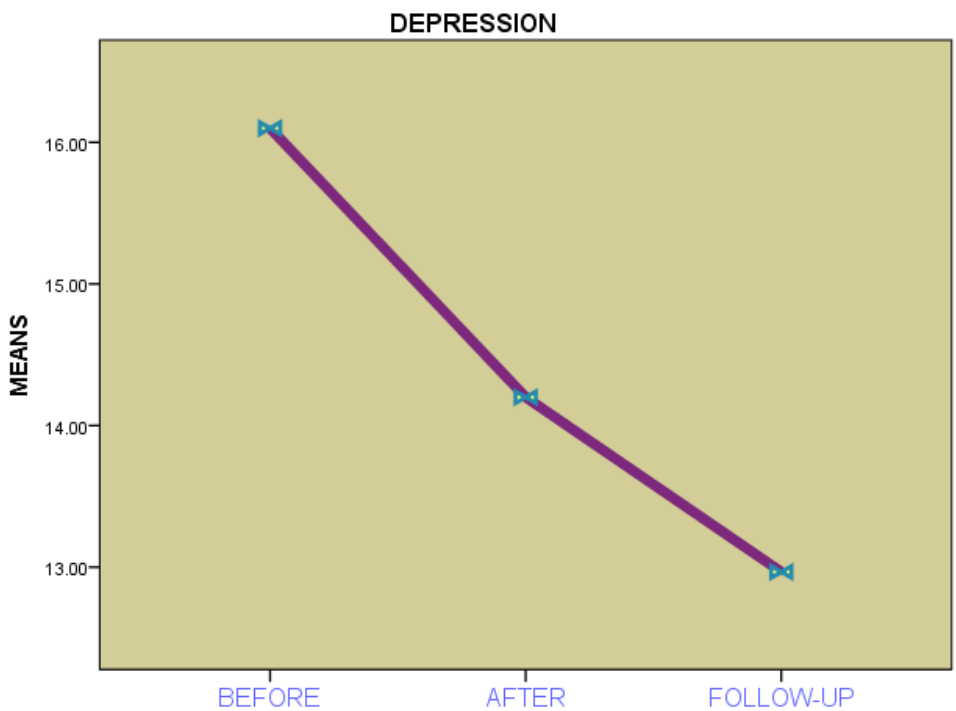


Table 19 shows the Post-Hoc analysis of depression indicating a reduction in the level of depression among the sample during the Before, After and Follow-up period of Pranayama intervention. The Duncan's Post-Hoc analysis shows a significant difference between the three phases of study.The result indicate that there is a decrease in the level of Depression among the sample. The Pranayama therapy helped them to deal with their low energy, motivation and other symptoms of Depression effectively which led to the reduction in the Depression scores in the sample. The scores were seen to be reduced further in the Follow-up period. Hence, Alternate Hypothesis 5 "There will be significant reduction in the level of depression after the intervention of Pranayama among people with mild level of depression" is accepted.

TABLE 20: COMPARISON OF MEAN DIFFERENCE OF DEPRESSION IN PRANAYAMA GROUP

GROUP	MEAN DIFFERENCE	SIG.
BEFORE-AFTER	1.90*	0.00
BEFORE-FOLLOW-UP	3.13*	0.00
AFTER-FOLLOW-UP	1.23	0.83

*Significant at 0.01 level

The results of Table 20 indicates that there were significant difference in Depression scores from before to after (pre-test to post-test) and before to follow-up phase. But the mean difference is not significant in the after to follow-up phase. This means that the level of Depression reduced immediately after the intervention of Pranayama therapy. The level of Depression was more or less maintained during the after to follow-up period but it was not a significant change.

"A Yogi measures the span of life by the number of breaths, not by the number of years."

Swami Sivananda

Yoga has its origin in India and it is now practiced worldwide and used as a therapeutic intervention. Hatha Yoga, one among the various systems of Yoga, is the most widely practiced and it has three components- Asanas (postures), Pranayama (breathing exercise) and Dhyana (meditation). The researcher has used, in the present study, the technique of Pranayama (breathing exercise) as an intervention for depression. Pranayama has different types of controlled breathing techniques. Anuloma- viloma Pranayama technique is the one used in the present study for people with mild level of depression. The results of the study reveal that pranayama was very effective in dealing with depression. It is said that the negative conditions, both physical and mental, are the cause as well as the consequence of blockages in the Pranic field or energy pathways. So when pranayama is practiced, these energy pathways will become gradually freed and prana moves through these pathways smoothly. The long term pranayama practice has helped the subjects in this study to remove the blockages, due to the accumulated negative thoughts and neurotransmitter imbalance, in their pranic field thereby overcoming their symptoms of depression. The regular practice of pranayama over a period of time also reinforces cortical control of breath, a process called as telencephalization, where one shifts from unconscious breathing to conscious breathing with a profound impact on one's well-being. The cerebral cortex will get involved in conscious breathing thereby affecting the adjoining areas of brain concerned with emotions (Saraswati, 2010). Thus Pranayama shows a notable impact on emotional regulation.

Several systematic reviews have demonstrated the mood enhancing effects of yoga in treatments for clinical depression (Uebelacker et al., 2010; Pilkington et al., 2005; Silva et al., 2012; Balasubramaniam et al., 2012). Yoga practice is associated with a reduced number of major depressive episodes and lower risk for dysthymia, a milder but longer-term form of depression (Banerjee et al., 2007; Kjellgren et al., 2007; Woolery et al., 2004; John et al., 2007; Sharma et al., 2006; Butler et al., 2008). Some of the studies have even said that yoga and meditative therapies are equally effective as conventional antidepressants in the treatment of depressive disorders (Silva et al., 2009; Cramer et al., 2013; Chen et al., 2012). All these are strongly supporting the present study results.

TABLE 21 : MEAN AND SD OF LEVEL OF RESILIENCE IN PRANAYAMA GROUP

	BEFORE		AFTER		FOLLOW-UP	
RESILIENCE	MEAN	SD	MEAN	SD	MEAN	SD
	78.43	18.15	82.36	18.95	84.53	19.46

[

Table 21 shows the Mean and SD of Resilience during Before, After and Follow-up period of Pranayama intervention among the sample. The mean of Resilience before Pranayama was 78.43, after Pranayama it increased to 82.36 and during the follow-up phase the mean score further improved to 84.53.

TABLE 22 : F-VALUE FOR RESLIENCE IN PRANAYAMA GROUP

DEPRESSION	SUM OF SQUARES	DEGREE OF FREEDOM	MEAN SQUARES	F
BETWEEN GROUP	601884.44	1	601884.44	.81 (NS)
WITHIN GROUP	573.75	2	286.88	

NS – Not siignificant

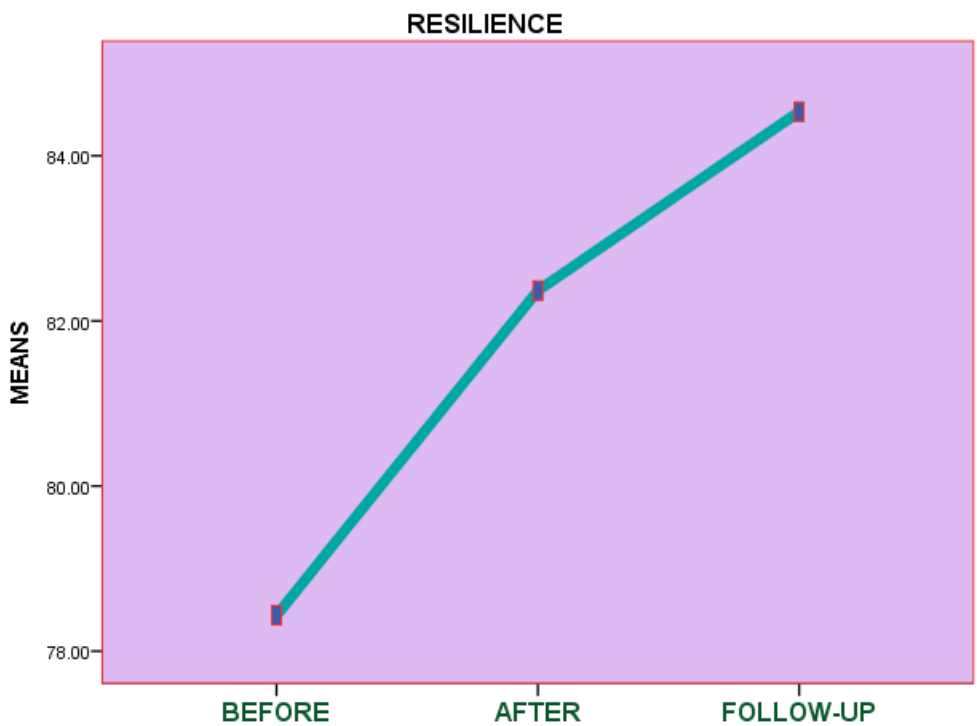
Table 22shows the ANOVA results of the Resilience among the sample during Before, After and Follow-up period of Pranayama intervention. The F-value was found to be 0.81 which indicates that there is no significant difference in the level of Resilience between the Before, After and Follow-up phases in the sample. Though a difference is seen in the mean score of resilience, they were not statistically significant.

TABLE 23 : POST HOC ANALYSIS OF RESILIENCE IN PRANAYAMA GROUP

	RESILIENCE	BEFORE	AFTER	FOLLOW-UP
BEFORE	78.43	_	(NS)	(NS)
AFTER	82.36	(NS)	_	(NS)
FOLLOW-UP	84.53	(NS)	(NS)	_

NS – Not siignificant

FIGURE 5: LEVEL OF RESILIENCE AMONG THE SAMPLE DURING BEFORE, AFTER AND FOLLOW-UP OF PRANAYAMA



The Post-Hoc analysis for Resilience was done to further analyze the change in each period. The results showed no remarkable improvement in the level of Resilience among the sample during the Before, After and Follow-up period of Pranayama intervention. The Duncan's Post-Hoc analysis shows no significant difference between Before, After and Follow-up scores. The results indicate that the Pranayama therapy has not been much helpful in making a significant improvement in the Resilience scores in the sample. Though the scores were seen to be improved slightly in the Follow-up period, the result indicates that the effect of therapy was not very significant in changing the Resilience of the sample. Hence, Alternate Hypothesis 6 "There will be significant improvement in the level of resilience after the intervention of Pranayama among people with mild level of depression" is rejected.

TABLE 24: COMPARISON OF MEAN DIFFERENCE OF RESILIENCE IN PRANAYAMA GROUP

GROUP	MEAN DIFFERENCE	SIG.
BEFORE-AFTER	3.93	0.800 (NS)
BEFORE-FOLLOW-UP	6.10	0.515 (NS)
AFTER-FOLLOW-UP	2.17	0.962 (NS)

NS – Not significant

The results of Table 24 indicates that there were no significant difference in the level of Resilience from before to after (pre-test to post-test), before to follow-up and after to follow-up phase. So, Pranayama as a therapy could not prove to make a remarkable change in the resilience factor in the sample. It may be due to the fact that the pranayama method used in this study, Anuloma-Viloma, calls for more imagination and the method is a passive one. No inputs or suggestions were given to the sample by the therapist to make an active verbal expression of their thoughts and emotions.

TABLE 25 : MEAN AND SD OF LEVEL OF SELF ESTEEM IN PRANAYAMA GROUP

SELF-ESTEEM	BEFORE		AFTER		FOLLOW-UP	
	MEAN	SD	MEAN	SD	MEAN	SD
	21.23	5.96	22.40	5.78	23.03	5.89

The Mean and SD of Self-esteem during Before, After and Follow-up period of Pranayama intervention among the sample were analyzed in Table 25. The mean of Self-esteem before the intervention of Pranayama was 21.23, after the intervention it increased to 22.40 and during the follow-up phase the mean scoresimproved to 23.03. The results show only a slight increase in the mean scores.

TABLE 26: F-VALUE FOR SELF-ESTEEM IN PRANAYAMA GROUP

DEPRESSION	SUM OF SQUARES	DEGREE OF FREEDOM	MEAN SQUARES	F
BETWEEN GROUP	44444.44	1	44444.44	0.72(NS)
WITHIN GROUP	50.02	2	21.01	

NS – Not significant

Table 26 shows the ANOVA results of the Self-esteemamong the sample during Before, After and Follow-up period of Pranayama intervention. The F-value was found to be 0.72 which indicates that there is no significant difference in the level of Self-esteem between the Before, After and Follow-up group in the sample. The effect of Pranayama as an intervention for improving self-esteem was not very evident in the results.

TABLE 27: POST HOC ANALYSIS FOR SELF-ESTEEM IN PRANAYAMA GROUP

	SELF-ESTEEM	BEFORE	AFTER	FOLLOW-UP
BEFORE	21.23	_	(NS)	(NS)
AFTER	22.40	(NS)	_	(NS)
FOLLOW-UP	23.03	(NS)	(NS)	_

NS – Not significant

FIGURE 6: LEVEL OF SELF-ESTEEM AMONG THE SAMPLE DURING BEFORE, AFTER AND FOLLOW-UP OF PRANAYAMA

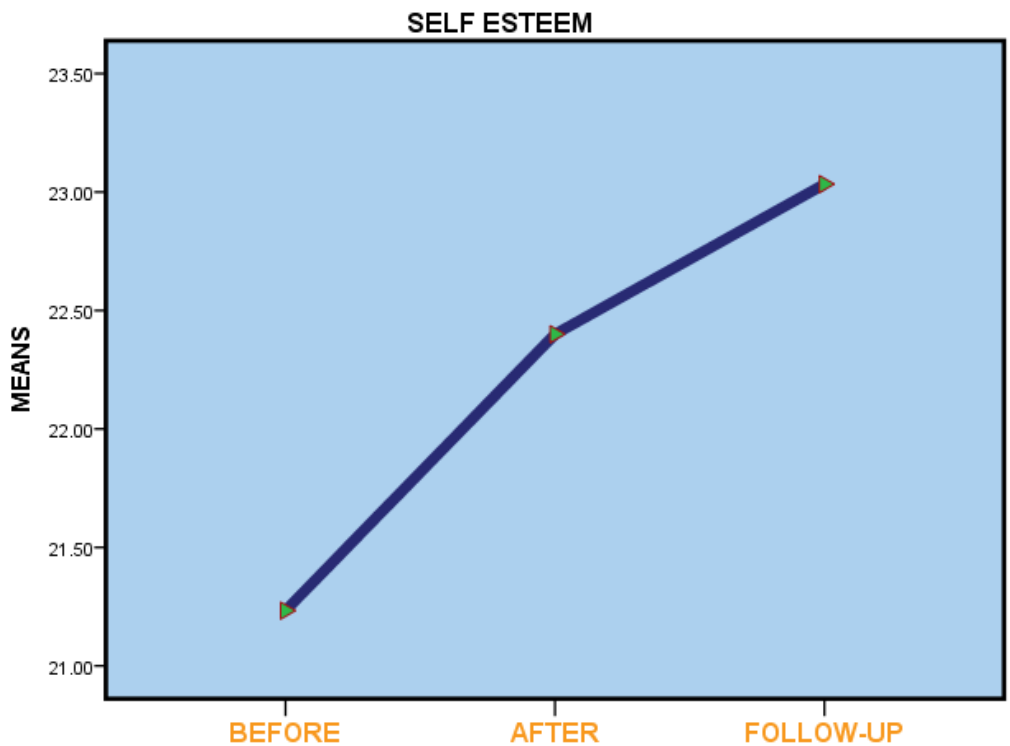


Table 27 shows the Post-Hoc analysis for Self-esteem which indicates level of Self-esteem among the sample during the Before, After and Follow-up period of Pranayama intervention. The Duncan's Post-Hoc analysis shows that there is no significant difference between Before, After and Follow-up scores. Though the illustration in figure 6 shows a progressive graph, it's not a very significant change. The result indicates that though there is a slight increase in the level of Self-esteem among the sample, the scores are not statistically significant. So the Pranayama therapy has not helped them to effectively improve their Self-esteem scores. Hence, Alternate Hypothesis 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" is rejected.

TABLE 28: COMPARISON OF MEAN DIFFERENCE OF SELF-ESTEEM IN PRANAYAMA GROUP

GROUP	MEAN DIFFERENCE	SIG.
BEFORE-AFTER	1.17	0.829(NS)
BEFORE-FOLLOW-UP	1.80	0.569(NS)
AFTER-FOLLOW-UP	0.63	0.966(NS)

NS – Not significant

When the mean difference of the three phases of therapy for self-esteem was calculated, it was found that there is no significant difference in the level of Self-esteem from before to after (pre-test to post-test), after to follow up and before to follow-up phase. This means that the Pranayama therapy could not make a significant effect on the level of Self-esteem of the sample.

TABLE 29: MEAN AND SD OF LEVEL OF DEPRESSION IN CARNATIC MUSIC THERAPY AND PRANAYAMA GROUP

DEPRESSION	BEFORE		AFTER		FOLLOW-UP	
	MEAN	SD	MEAN	SD	MEAN	SD
	16.46	1.56	12.80	1.58	11.10	1.21

Table 29 shows the Mean and SD of Depression during Before, After and Follow-up period of CMT and Pranayama (combined) intervention among the sample. The mean of Depression before the intervention of CMT and Pranayama was 16.46, after the intervention it reduced to 12.80 and during the follow-up phase the mean score further reduced to 11.10 which is a very positive change that shows the effectiveness of intervention. The treatment effect was maintained even in the follow-up phase.

TABLE 30: F-VALUE FOR DEPRESSION IN CARNATIC MUSIC THERAPY AND PRANAYAMA GROUP

DEPRESSION	SUM OF SQUARES	DEGREE OF FREEDOM	MEAN SQUARES	F
BETWEEN GROUP	16294.678	1	16294.68	105.01*
WITHIN GROUP	451.35	2	225.68	

*significant at 0.01 level

Table 30 shows the ANOVA results of the Depression among the sample during Before, After and Follow-up period of CMT and Pranayama intervention. The F-value was found to be 105.01 which indicates that there is a significant difference in the level of Depression between the Before, After and Follow-up group in the sample. The significant difference is attributed to the effect of the intervention.

TABLE 31: POST HOC ANALYSIS FOR DEPRESSION IN CARNATIC MUSIC THERAPY AND PRANAYAMA GROUP

	DEPRESSION	BEFORE	AFTER	FOLLOW-UP
BEFORE	16.46	_	**	**
AFTER	12.80	**	_	**
FOLLOW-UP	11.10	**	**	-

**significant at 0.01 level

FIGURE 7: LEVEL OF DEPRESSION AMONG THE SAMPLE DURING BEFORE, AFTER AND FOLLOW-UP OF CARNATIC MUSIC THERAPY AND PRANAYAMA

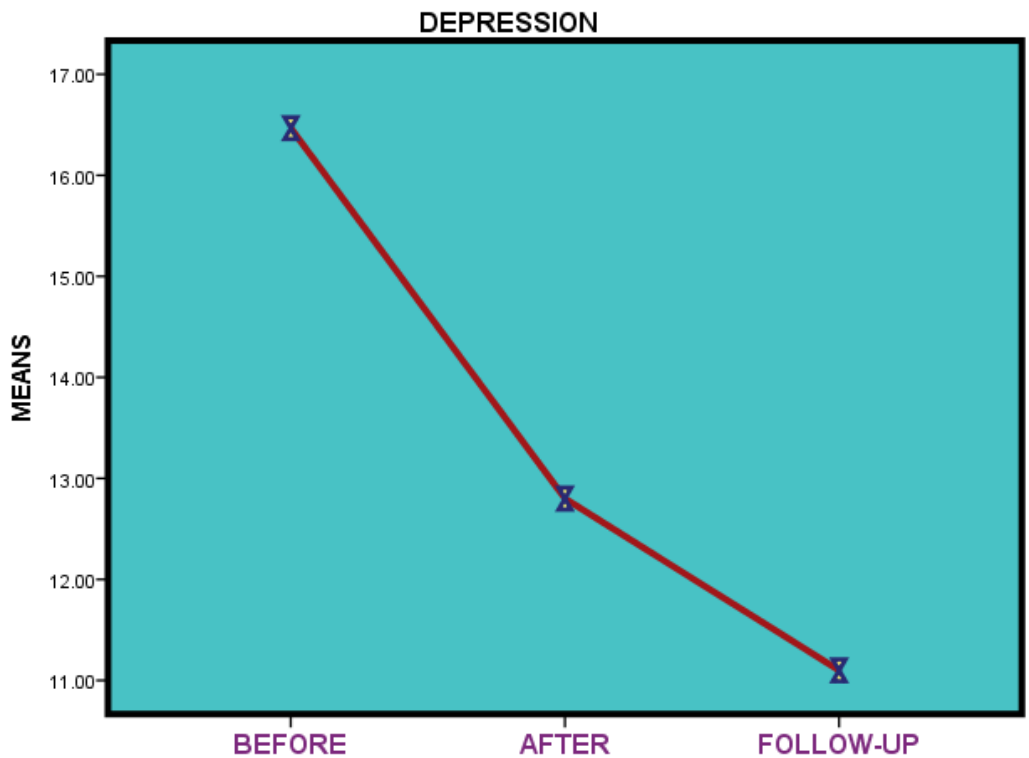


Table 31 shows the Post-Hoc analysis for depression which indicates a reduction in the level of depression among the sample during the Before, After and Follow-up period of CMT and Pranayama intervention. The Duncan's Post-Hoc analysis and the illustration graph in figure 7 shows a significant difference between Before, After and Follow-up scores. The result indicates that there is decrease in the level of Depression among the sample. The CMT and Pranayama combined therapy had a double effect in dealing with the symptoms of Depression effectively which lead to the reduction in the Depression scores in the sample. The scores were seen to be reduced further in the Follow-up period which shows that the effects of therapy prolong even after intervention had stopped. Hence, Alternate Hypothesis 8 "There will be significant reduction in the level of depression after the intervention of Carnatic music therapy and Pranayama among people with mild level of depression" is accepted.

TABLE 32: COMPARISON OF MEAN DIFFERENCE OF DEPRESSION IN CARNATIC MUSIC THERAPY AND PRANAYAMA GROUP

GROUP	MEAN DIFFERENCE	SIG.
BEFORE-AFTER	3.67*	0.00
BEFORE-FOLLOW-UP	5.37*	0.00
AFTER-FOLLOW-UP	1.70*	0.00

*significant at 0.01 level

The results of Table 32 indicates that there were significant difference in Depression scores from before to after (pre-test to post-test) and before to follow-up phase. Moreover there was a significant difference in the after to follow-up phase. The level of Depression reduced remarkably from before to after to follow-up phases of the intervention of CMT and Pranayama.

Music and Pranayama isolates the mind and consciousness from the pathways of sensory stimulation. Thus the consciousness enters a powerful state of understanding and realization. So in a depressed individual, music and pranayama helps to elevate their mood to a balanced state and energize the mind. Their negative cognitions automatically

get transformed into positive ones through experiencing music and practicing Pranayama. These changes could have made a reduction in their level of depression.

TABLE 33: MEAN AND SD OF LEVEL OF RESILIENCE IN CARNATIC MUSIC THERAPY AND PRANAYAMA GROUP

	BEFORE		AFTER		FOLLOW-UP	
RESILIENCE	**MEAN**	**SD**	**MEAN**	**SD**	**MEAN**	**SD**
	77.26	15.69	86.60	14.12	93.06	13.21

Table 33 shows the Mean and SD of Resilience during Before, After and Follow-up period of CMT and Pranayama intervention among the sample. The mean of Resilience before CMT andPranayama was 77.26, after intervention it increased to 86.60 and during the follow-up phase the mean score further improved to 93.06. This shows a very positive sign and the high effectiveness of the combined intervention. The score was even further improved in the follow-up phase which also shows the long-term effectiveness of the combined therapy.

TABLE 34: F-VALUE FOR RESILIENCE IN CARNATIC MUSIC THERAPY AND PRANAYAMA GROUP

RESILIENCE	SUM OF SQUARES	DEGREE OF FREEDOM	MEAN SQUARES	F
BETWEEN GROUP	660147.37	1	660147.37	9.15*
WITHIN GROUP	3785.68	2	1892.84	

*significant at 0.01 level

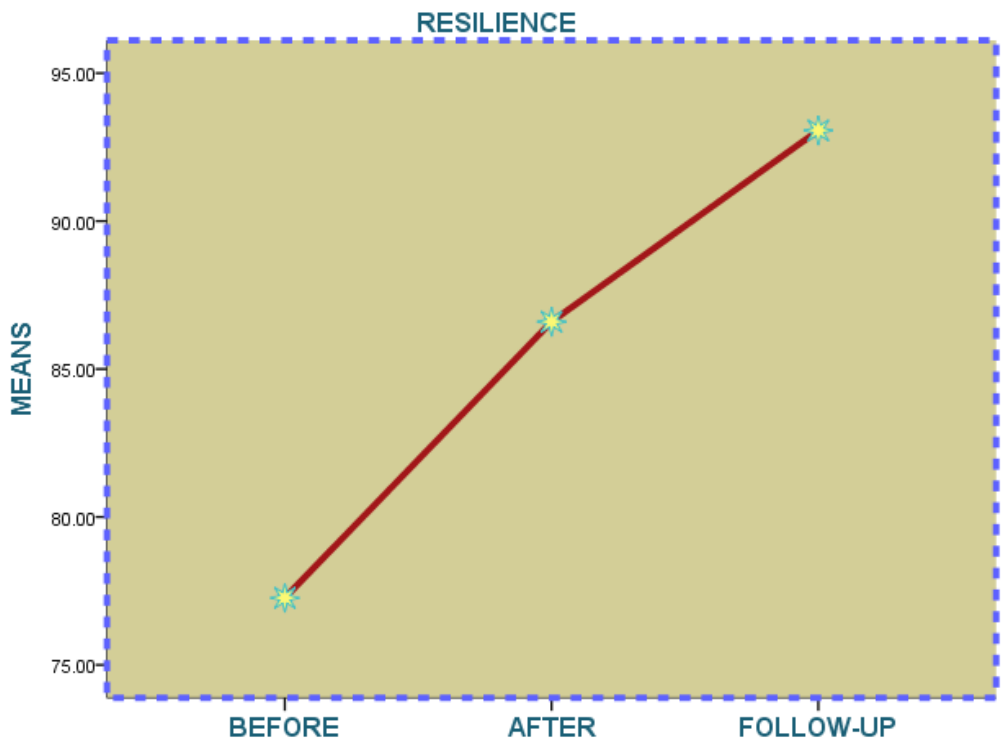
Table 34 shows the ANOVA results of the Resilience among the sample during Before, After and Follow-up period of CMT and Pranayama intervention. The F-value was found to be 9.15 which indicates that there is a significant difference in the level of Resilience between the Before, After and Follow-up group in the sample.

TABLE 35: POST HOC ANALYSIS FOR RESILIENCE IN CARNATIC MUSIC THERAPY AND PRANAYAMA GROUP

	RESILIENCE	BEFORE	AFTER	FOLLOW-UP
BEFORE	77.27	_	_	**
AFTER	86.60	_	_	-
FOLLOW-UP	93.06	**	-	_

**significant at 0.01 level

FIGURE 8: LEVEL OF RESILIENCE AMONG THE SAMPLE DURING BEFORE, AFTER AND FOLLOW-UP OF CARNATIC MUSIC THERAPY AND PRANAYAMA



The results in Table 35 shows the Post-Hoc analysis for Resilience which indicates a good improvement in the levelof Resilience among the sample during the Before, After and Follow-up period of CMT and Pranayama combined intervention. The result indicates that there is an increase in the level of Resilience among the sample. The CMT and Pranayama therapy helped them to keep their mind relaxed and balanced. This has made them improve their capacity to cope up with the stresses more effectively which led to the improvement in the Resilience scores in the sample. Hence, Alternate Hypothesis 9 "There will be significant improvement in the level of resilience after the intervention of Carnatic music therapy and Pranayama among people with mild level of depression" is accepted.

TABLE 36: COMPARISON OF MEAN DIFFERENCE OF RESILIENCE IN CARNATIC MUSIC THERAPY AND PRANAYAMA GROUP

GROUP	MEAN DIFFERENCE	SIG.
BEFORE-AFTER	9.33	0.06
BEFORE-FOLLOW-UP	15.80*	0.00
AFTER-FOLLOW-UP	6.47	0.20

*significant at 0.01 level

The results of Table 36 indicates that there were significant differences in the level of Resilience from before (pre-test) to follow-up phase. Though the mean difference is not significant in the before to after and after to follow-up phase, the results in the before-follow-up phase indicate that the level of Resilience improved remarkably after the intervention of CMT and Pranayama combined. Carnatic music ragas and Pranayama, both have the capability of influencing the sympathetic and parasympathetic nervous system thereby maintaining the body-mind equilibrium. Mind-body equilibrium is a basic factor that lead to developing the coping skills and resilience.

TABLE 37: MEAN AND SD OF LEVEL OF SELF-ESTEEM IN CARNATIC MUSIC THERAPY AND PRANAYAMA GROUP

	BEFORE		AFTER		FOLLOW-UP	
SELF-ESTEEM	MEAN	SD	MEAN	SD	MEAN	SD
	19.23	3.48	22.83	3.34	24.40	5.93

Table 37 shows the Mean and SD of Self-esteem during Before, After and Follow-up period of CMT and Pranayama combined intervention among the sample. The mean of Self-esteem before CMT and Pranayama was 19.23, afterintervention it increased to 22.83 and during the follow-up phase the mean scoresimproved to 24.40. This shows a positive sign and the effectiveness of intervention. The score was slightly improved in the follow-up phase which may be due to the participant's sustained interest in doing the CMT and Pranayama. The treatment effect might have motivated the participant to continue the therapy at home which resulted in enhancement of self-esteem in the follow-up period.

TABLE 38: F-VALUE FOR SELF-ESTEEM IN CARNATIC MUSIC THERAPY AND PRANAYAMA GROUP

SELF-ESTEEM	SUM OF SQUARES	DEGREE OF FREEDOM	MEAN SQUARES	F
BETWEEN GROUP	44178.17	1	44178.17	10.79*
WITHIN GROUP	421.08	2	210.54	

*significant at 0.01 level

Table 38 shows the ANOVA results of the Self-esteemamong the sample during Before, After and Follow-up period of CMT and Pranayama intervention. The F-value was found to be 10.79 which indicates that there is a significant difference in the level of Self-esteembetween the Before, After and Follow-up group in the sample. The significant difference is attributed to the effect of the intervention.

TABLE 39: POST HOC ANALYSIS FOR RESILIENCE IN CARNATIC MUSIC THERAPY AND PRANAYAMA GROUP

	SELF-ESTEEM	BEFORE	AFTER	FOLLOW-UP
BEFORE	19.23	_	**	**
AFTER	22.83	**	_	-
FOLLOW-UP	24.40	**	-	_

**significant at 0.01 level

FIGURE 9: LEVEL OF SELF-ESTEEM AMONG THE SAMPLE DURING BEFORE, AFTER AND FOLLOW-UP OF CARNATIC MUSIC THERAPY AND PRANAYAMA

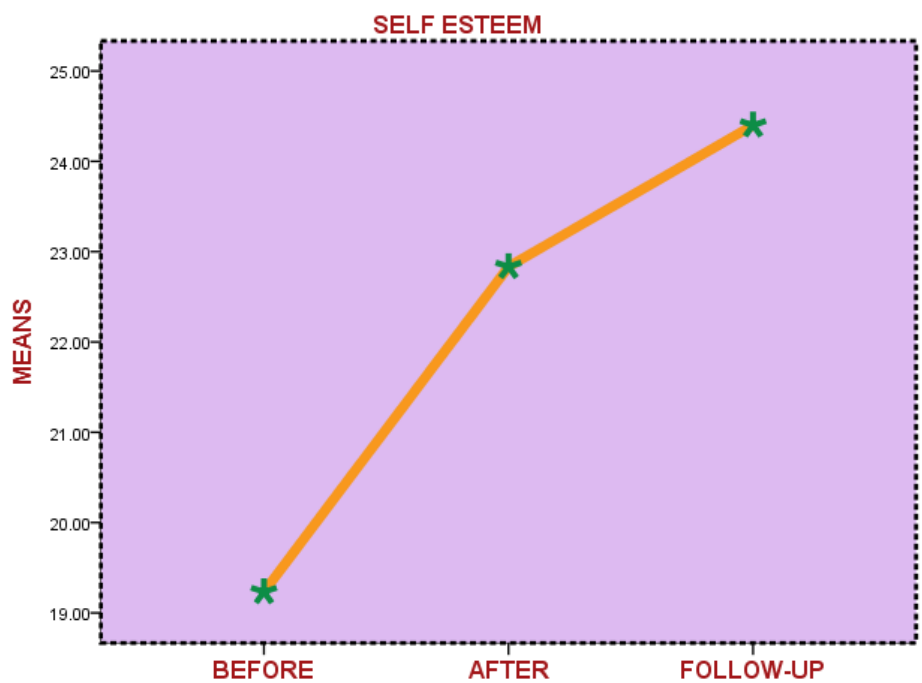


Table 39 shows the Post-Hoc analysis for Self-esteem which indicates a good improvement in the level of Self-esteem among the sample during the Before, After and Follow-up period of CMT and Pranayama intervention. The Duncan's Post-Hoc analysis shows a significant difference between Before, After and Follow-up scores. The result indicates that there is an increase in the level of Self-esteem among the sample. The CMT and Pranayama intervention helped them to keep their mind balanced and was better able to manage their emotions. This has made them more confident about themselves and deal with situations more effectively which lead to the improvement in theSelf-esteem scores in the sample. Hence, Alternate Hypothesis 10 "There will be significant improvement in the level of self-esteem after the intervention of Carnatic music therapy and Pranayama" is accepted.

TABLE 40: COMPARISON OF MEAN DIFFERENCE OF SELF-ESTEEM IN CARNATIC MUSIC AND PRANAYAMA GROUP

GROUP	MEAN DIFFERENCE	SIG.
BEFORE-AFTER	3.60*	0.00
BEFORE-FOLLOW-UP	5.17*	0.00
AFTER-FOLLOW-UP	1.57	0.52

*significant at 0.01 level

Mean difference of the self-esteem scores in the three phases were compared in table 40.The results indicates that there were significant differences in Self-esteem scores from before to after (pre-test to post-test) and before to follow-up phase. But the mean difference is not significant in the after to follow-up phase. This means that the level of Self-esteem improved remarkably after the intervention of CMT and Pranayama. While the level of Self-esteem was maintained during the follow-up period.

The combination of CMT and Pranayama has a created a double-effect in the therapeutic quality. Both techniques are proved for its effectiveness in creating changes in the psychological factors, thereby altering their mental processes. CMT and Pranayama, both show an evident influence on ANS. The passive nature of Pranayama has created a

complete state of relaxation and a balance in the CNS activities of the sample, while the active and creative quality of music has brought a good vent-off for the negative emotions simultaneously filling up their minds with positive and creative thoughts. So the combined therapy was effective in reducing depressive symptoms and improving mental immunity or Resilience in the sample. The sample was helped to pull out their negative statements of self-evaluation during the verbal interaction in CMT sessions. The therapist played the role of a facilitator and helped them to go deeper into their own selves and pick up their own capabilities and strengths which were never explored earlier. This has helped to bring out a good improvement in their self-esteem.

So the combination therapy has proved to be very effective in making changes in all the three variables under study: Depression, Resilience and Self-esteem.

TABLE 41: MEAN AND SD OF LEVEL OF DEPRESSION IN CONTROL GROUP

	BEFORE		AFTER		FOLLOW-UP	
DEPRESSION	MEAN	SD	MEAN	SD	MEAN	SD
	16.60	1.47	17.03	1.58	17.36	1.51

Table 41 shows the Mean and SD of Depression during Before, After and Follow-up period of Control group sample. The mean of Depression in before phase was 16.60, in the after phase it increased to 17.03 and during the follow-up phase the mean score was almost the same which is17.36. This shows a slight increase in the level of Depression in the Control group. The score indicates that the participants' level of Depression show no remarkable change in the three phases among the control group.

TABLE 42: F-VALUE FOR DEPRESSION IN CONTROL GROUP

DEPRESSION	SUM OF SQUARES	DEGREE OF FREEDOM	MEAN SQUARES	F
BETWEEN GROUP	8.86	2	4.43	1.89(NS)
WITHIN GROUP	203.13	87	2.33	

NS – Not significant

Table 42 shows the ANOVA results of the level of Depression among the sample during Before, After and Follow-up period. The F-value was found to be 1.89 which indicates that there is no significant difference in the level of Depression between the Before, After and Follow-up group in the sample.

TABLE 43: POST HOC ANALYSIS FOR DEPRESSION IN CONTROL GROUP

	DEPRESION	BEFORE	AFTER	FOLLOW-UP
BEFORE	16.60	_	(NS)	(NS)
AFTER	17.03	(NS)	_	(NS)
FOLLOW-UP	17.36	(NS)	(NS)	_

NS – Not significant

FIGURE 10: LEVEL OF DEPRESSION AMONG THE SAMPLE DURING BEFORE, AFTER AND FOLLOW-UP OF CONTROL GROUP

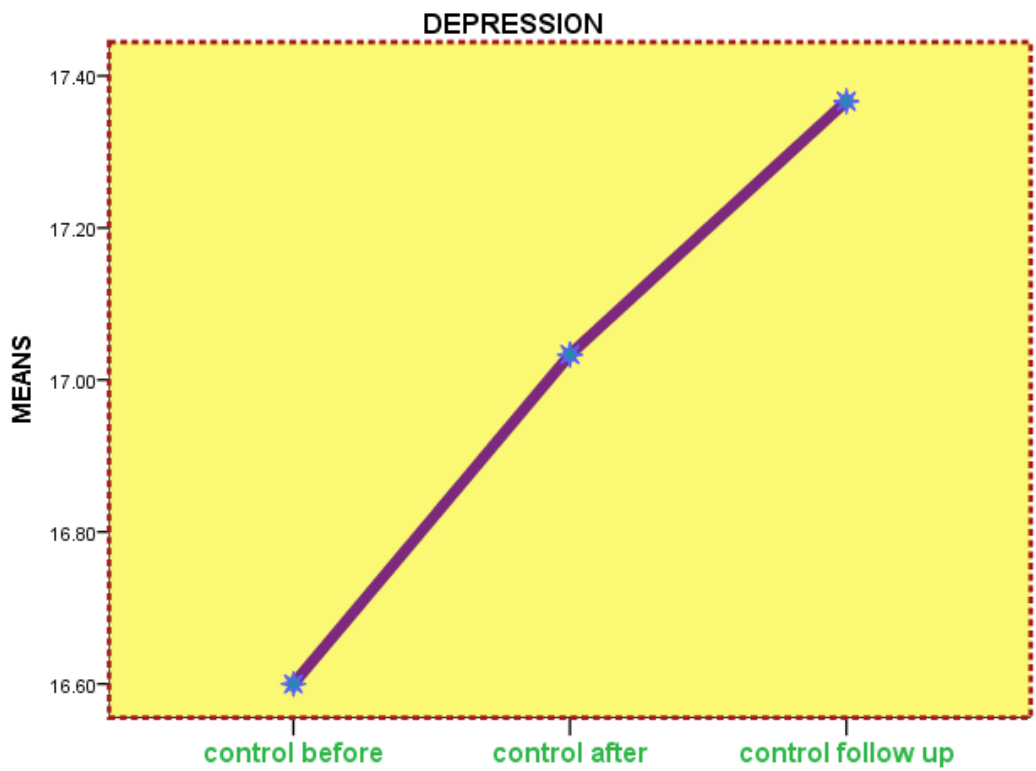


Table 43 shows the Post-Hoc analysis for Depression which indicates the level of Depression among the sample during the Before, After and Follow-up group. The Duncan's Post-Hoc analysis shows that there is no significant difference between Before, After and Follow-up scores .The level of Depression among the sample remained almost unchanged. Hence, Alternate Hypothesis 11 "There will be significant difference in the level of Depression in the sample during Before, After and Follow-up periods in the control group" is rejected.

TABLE 44: COMPARISON OF MEAN DIFFERENCE OF DEPRESSION IN CONTROL GROUP

GROUP	MEAN DIFFERENCE	SIG.
BEFORE-AFTER	0.43	0.62 (NS)
BEFORE-FOLLOW-UP	0.77	0.15(NS)
AFTER-FOLLOW-UP	0.33	0.79(NS)

NS – Not significant

The results of Table 44 indicates that there were no significant difference in Depression scores from before to after (pre-test to post-test) and follow-up phase. The mean difference is not significant in any of the phases. This means that their level of Depression shows no change in any period.

TABLE 45: MEAN AND SD OF LEVEL OF RESILIENCE IN CONTROL GROUP

RESILIENCE	BEFORE		AFTER		FOLLOW-UP	
	MEAN	SD	MEAN	SD	MEAN	SD
	80.10	15.93	79.06	16.23	78.60	16.25

Table 45 shows the Mean and SD of Resilience during Before, After and Follow-up period of Control group sample. The mean of Resilience in before phase was 80.10, in the after phase it slightly decreased to 79.06 and during the follow-up phase the mean score was almost the same which is 78.60. The score indicate that in the control group, the participants' level of Resilience showed no remarkable change.

TABLE 46: F-VALUE FOR RESILIENCE IN CONTROL GROUP

RESILIENCE	SUM OF SQUARES	DEGREE OF FREEDOM	MEAN SQUARES	F
17.67	35.35	2		.06(NS)
WITHIN GROUP	22669.76	87	260.57	

NS – Not significant

Table 46 shows the ANOVA results of the level of Resilience among the sample during Before, After and Follow-up period. The F-value was found to be 0.06 which indicates that there is no significant difference in the level of Resilience between the Before, After and Follow-up group in the sample.

TABLE 47: POST HOC ANALYSIS FOR RESILIENCE IN CONTROL GROUP

	RESILIENCE	BEFORE	AFTER	FOLLOW-UP
BEFORE	78.60	_	(NS)	(NS)
AFTER	79.07	(NS)	_	(NS)
FOLLOW-UP	80.10	(NS)	(NS)	_

NS – Not significant

FIGURE 11: LEVEL OF RESILIENCE AMONG THE SAMPLE DURING BEFORE, AFTER AND FOLLOW-UP OF CONTROL GROUP

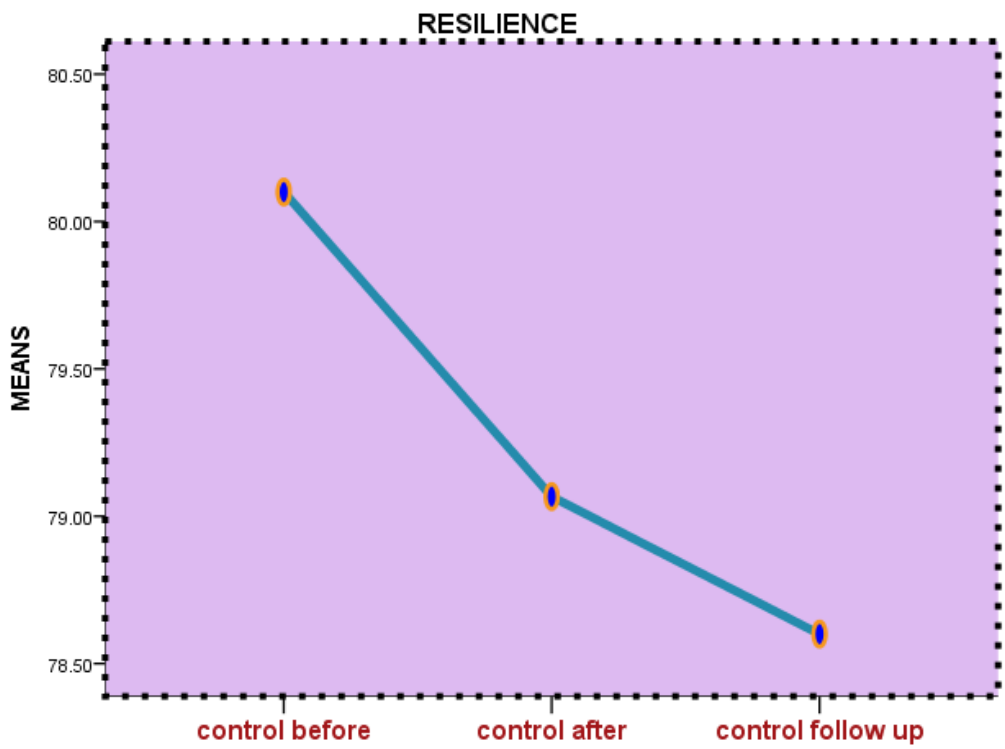


Table 47 shows the Post-Hoc analysis for Resilience which indicates the level of Resilience among the sample during the Before, After and Follow-up group. The Duncan's Post-Hoc analysis shows no significant difference between Before, After and Follow-up scores. The result indicates that there is no change in the Resilience level among the sample. Hence, Alternate Hypothesis 15"There will be a significant difference in the level of Resilience during Before, After and Follow-up periods in the control group" is rejected.

TABLE 48: COMPARISON OF MEAN DIFFERENCE OF RESILIENCE IN CONTROL GROUP

GROUP	MEAN DIFFERENCE	SIG.
BEFORE-AFTER	1.03	0.99(NS)
BEFORE-FOLLOW-UP	1.50	0.98(NS)
AFTER-FOLLOW-UP	0.47	0.99(NS)

NS - Not significant

The results of Table 48 indicates that there were no significant difference in the level of Resilience from before to after (pre-test to post-test) and follow-up phase. The mean difference is not significant in any of the phases. This means that their level of Resilience shows no remarkable change in any period.

TABLE 49: MEAN AND SD OF LEVEL OF SELF-ESTEEM IN CONTROL GROUP

	BEFORE		AFTER		FOLLOW-UP	
SELF-ESTEEM	MEAN	SD	MEAN	SD	MEAN	SD
	18.60	3.35	18.20	3.42	17.76	3.52

Table 49 shows the Mean and SD of Self-esteem during Before, After and Follow-up period ofControl group. The mean of Self-esteemin the before group was 18.60, afterintervention it was 18.20 and during the follow-up phase the mean scoresslightly reduced to 17.76. The result shows that there is no remarkable change in the level of Self-esteem in the sample during the three different periods.

TABLE 50: F-VALUE FOR SELF-ESTEEM IN CONTROL GROUP

SELF-ESTEEM	SUM OF SQUARES	DEGREE OF FREEDOM	MEAN SQUARES	F
BETWEEN GROUP	10.42	2	5.21	0.44(NS)
WITHIN GROUP	1027.36	87	11.81	

NS - Not significant

Table 50 shows the ANOVA results of the Self-esteem among the sample during Before, After and Follow-up period in the Control group. The F-value was found to be 0.44 which indicates that there is no significant difference in the level of Self-esteem between the Before, After and Follow-up periods in the sample.

TABLE 51: POST HOC ANALYSIS FOR SELF-ESTEEM IN CONTROL GROUP

	SELF-ESTEEM	BEFORE	AFTER	FOLLOW-UP
BEFORE	17.77	_	(NS)	(NS)
AFTER	18.20	(NS)	_	(NS)
FOLLOW-UP	18.60	(NS)	(NS)	_

NS - Not significant

FIGURE 12: LEVEL OF SELF-ESTEEM AMONG THE SAMPLE DURING BEFORE, AFTER AND FOLLOW-UP OF CONTROL GROUP

Table 51 shows the Post-Hoc analysis for Self-esteem which indicates the level of Self-esteem among the sample during the Before, After and Follow-up period of Control group. The Duncan's Post-Hoc analysis shows no significant difference between Before, After and Follow-up scores. The result indicates that there is no change in the level of Self-esteem among the sample. Hence, Alternate Hypothesis 16 "There will be significant difference in the level of Self-esteem during Before, After and Follow-up periods of Control group" is rejected.

TABLE 52: COMPARISON OF MEAN DIFFERENCE OF SELF-ESTEEM IN CONTROL GROUP

GROUP	MEAN DIFFERENCE	SIG.
BEFORE-AFTER	0.40	0.96(NS)
BEFORE-FOLLOW-UP	0.43	0.73(NS)
AFTER-FOLLOW-UP	0.83	0.95(NS)

NS - Not significant

The results of Table 52 indicates that there were no significant difference in Self-esteem scores from before to after (pre-test to post-test) and follow-up phase. The mean difference is not significant in any of the phases. This indicates that their level of Self-esteem shows no change in any period.

TABLE 53: COMPARISON OF MEAN DIFFERENCES OF DEPRESSION IN MULTIPLE GROUPS

GROUP	BEFORE-AFTER	BEFORE-FOLLOW-UP	AFTER-FOLLOW-UP
CARNATIC MUSIC THERAPY	3.93*	4.73*	0.80
PRANAYAMA	1.90*	3.13*	1.20
CARNATIC MUSIC THERAPY AND PRANAYAMA	3.67*	5.37*	1.70*
CONTROL GROUP	0.43	0.77	0.33

*significant at 0.01 level

The results in Table 53 shows that Mean Difference between before to after and before to follow-up in all the three, CMT, Pranayama and CMT and Pranayama, groups found to be significant. Mean difference is not significant in the control group. This indicates that all the three therapies, CMT, Pranayama and CMT and Pranayama, were found to be highly effective in managing Depression. In the control group, where only standard care was given, no significant change was observed in the level of depression of the sample.

TABLE 54: COMPARISON OF MEAN DIFFERENCES OF RESILIENCE IN MULTIPLE GROUPS

GROUP	BEFORE-AFTER	BEFORE-FOLLOW-UP	AFTER-FOLLOW-UP
CARNATIC MUSIC THERAPY	11.93*	15.97*	4.03*
PRANAYAMA	3.93	6.10	2.17
CARNATIC MUSIC THERAPY& PRANAYAMA	9.33*	15.80*	6.47
CONTROL GROUP	1.03	0.50	0.47

*significant at 0.01 level

When the mean difference of Resilience were compared in the four different groups, it was found that CMT group and CMT and Pranayama group, both have a remarkable effect on the Resilience factor of the sample. It was seen that scores have improved remarkably in both the groups. While Pranayama was not found to be effective in making an influence on the Resilience of the sample. The scores were found to be insignificant during the various phases of therapy. No significant difference in the scores of Resilience was observed in the Control group also, where only standard care was given.

TABLE 55: COMPARISON OF MEAN DIFFERENCES OF SELF-ESTEEM IN MULTIPLE GROUPS

GROUP	BEFORE-AFTER	BEFORE-FOLLOW-UP	AFTER-FOLLOW-UP
CARNATIC MUSIC THERAPY	3.77	5.03*	1.27
PRANAYAMA	1.17	1.80	0.63
CARNATIC MUSIC THERAPY& PRANAYAMA	3.60*	5.17*	1.57
CONTROL GROUP	0.40	0.43	0.83

*significant at 0.01 level

The results in table 55 indicate that CMT and Pranayama intervention was very effective in improving the Self-esteem of the sample. CMT was also found to be effective, but the immediate effect, soon after the intervention, was not statistically significant. Pranayama therapy could not make any remarkable change in the level of Self-esteem of the sample in any of the stages. In the Control group, no significant change was observed in the Self-esteem of the sample.

The results reported and discussed above clearly indicated that this study with multiple intervention modules aimed at mitigating Depression, enhancing Resilience and Self-esteem among the sample was successful in its outcomes by reaching the proposed intention. The effectiveness of CMT, Pranayama and its combination were proved in reducing the level of Depression. CMT and CMT plus Pranayama were also found to be very effective in enhancing the Resilience and Self-esteem in the sample. Pranayama alone could not make an impact on the variables Resilience and Self-esteem in the sample. So when we look at the overall effect, CMT shows an exclusive impact in this study independently and also in combination with Pranayama.

Saint Thyagaraja says in his composition “Sreepapriya…” in Atana Raga that “Music is Yoga”. Both music and yoga are found to have in it different paths to the same goal of Self-realization. But it’s also said that a yogi (one who practices yoga) tries to

open the Chakras (nerve plexus) in his body with a lot of exercise and he has to take special effort to do so. While a Naadalayayogi (a music enthusiast) attains the similar state of relaxation naturally and without effort, through the medium of music. Both the singer and the listener turns into the state of a natural yogi through merging with the music (Nalappat, 2009). This could be the reason for the better results and improvements shown by the intervention of CMT alone and in combination with Pranayama especially on the variables Resilience and Self-esteem. The power of music is innate and sacred. Music is a spiritual energy in itself. The vital essence of music is bliss and sweetness. So it doesn't need any special training to understand and experience music. It has the quality of cosmic truth and it's universal. Thus it can reach anyone, its effect is beyond time and space. Music at its core is a spiritual experience whose perceptibility remains out of reach of sense organs.

In a scientific view, when music is used systematically within a developing relationship between client and therapist to restore, maintain and improve physiological, emotional, psychological and neurological functions, it becomes therapeutic. Various physiological, psychological and spiritual issues of the client are dealt with individually in a CMT session. Technique of relaxation and stress reduction through music are taught in a nurturing environment of music in CMT. Any type of classical music and melodies has a healing effect on the temporal lobe/ limbic system. It gives more concentration and efficiency to normal person's brain and an ease of tension to a diseased person's brain. In the present study, sample is a group of people with mild level of depression. Carnatic music ragas have provided them with a nurturing and energetic musical atmosphere which helped to elevate their mood, explore and utilize their innate capabilities and skills in overcoming negative life conditions and thus enhancing their Resilience and Self-esteem.

Music and Pranayama produces a similar impact on human physiology. They are capable of decreasing the respiratory rate, blood pressure, anxiety, tension and depression. Music is proved to reduce pain by increasing the level of endorphin secretion. Pranayama and music regulates the production of hormones that increases the speed of healing and reduces the danger of infection. As far as Carnatic music is concerned, there are 72 Melakartha Ragas (parent Ragas) and various other Janya Ragas born from these

72 parent Ragas. Repeated listening to particular Ragas produces a network of sound vibration beneficial for various organ systems. The Ragas has its effect on six Chakras (nerve plexus) in human body and thus affect the CNS.

During Pranayama, the circulation of the blood becomes very rapid and the quality of blood supplied will become very rich. This richer quality of blood makes the endocrine glands, brain, spinal nerves and SNS healthier. Another advantage is that the nerves are directly exercised during inhalation and exhalation of Pranayama. Thus the entire nervous system gets very exquisitely exercised (Ghooi, 2009). As one advances in practices of Pranayama, one gets replenished with fresh energy, and the senses are calmed and their tendencies diminishes. Impurities are removed, not only from the physical and pranic body, but also from the mental, psychic and causal bodies. As a result, the intellectual capacity increases, and the mind and thoughts become more powerful. As prana flows freely through all levels, the negative tendencies begin to drop off automatically. The small things that could earlier spin one out of control dissolve into nothing, the connection with the cosmic prana makes one stronger and steady. Pranayama harmonizes, purifies and neutralizes the secretions of the endocrine glands and thereby influence thoughts and behavior. Respiration also controls fluctuating moods, which are subtle behaviors of the mind. The wild fluctuations in brainwaves are streamlined and a balance between two hemispheres of the brain is streamlined by slow, deep, coordinated and systematic breathing. Anuloma Viloma Pranayama specially helps to restore the ANS balance. Pranayama activates the frontal brain, thereby inducing tranquility, clarity of thought and concentration. It has proved to be helpful in removing depressive tendencies and vertigo (Saraswati, 2010). Thus the efficacy of CMT and Pranayama on Depression could be well substantiated by the above mentioned scientific views proved in various literatures.