CHAPTER SIX

CONCLUSION

Tyagaya’s devotional Sangeetham creates an emotional and meditational effects in the brain. Tyagaya’s Sangeetham by virtue of its religious nature reduces the agitated activity in the brain. The melody and the harmony are responsible for calming the complex nervous system. Tyagaya’s devotional kritis acts as a pathway to accomplish a needed function of ‘God’ realization. The needed function is for the brain cells to remain serene and concentrate on the intrinsic holy factor. The stimulated brain cells create an emotional atmosphere to envisage God imagery. The persistent dynamics of singing Swami Tyagaya’s kritis and the consistent contemplation of sacred devotion creates deliberately a specific spiritual emotion. This is possible by the neuroplastic changes in the brain brought about through constant spiritual thought and experience.

Devotional Meditation through Sangeetham is good for the brain and it brings one closer to spirituality. Spirituality rapidly establishes intimacy with qualities associated with love and compassion Swami Tyagaya’s Devotional Sangeetham is a form of meditation. The language and the devotion create love and compassion. These qualities of intimacy foster greater degree of personal health (Newberg, 2010:215). Compassion is a fundamental tenet for all spiritual tradition. The communication through love is essential for all forms of interpersonal relationship.

The emotional character of Sangeetham triggers the neurological ability to express kindness, empathy and forgiveness. It is associated with communal and
psychological health. The brain neurons are responsible for the external influence. *Sangeetham* stimulates the respective brain centres. Singing Tyagaya’s *Sangeetham* can be an effective medium to enhance interpersonal relationship and deepen spiritual bonds. Tyagaya’s devotional compositions bring serenity and awareness into the spiritual contemplation. His spiritual *Sangeetham* resonates in the emotional areas of the brain.

A survey of Spiritual experience conducted by Newberg found that after meditation 60% increase in a desire for peace and desire for love tripled (Newberg, 2010:221). Newberg’s survey 80% said that they had some form of sensory, visual, or auditory experience. People described seeing light, colors, or auras; hearing sounds like humming or ringing; or hearing voices. These sensations greatly enhanced the power and meaning of their experience. Some have confessed that during meditation, they have experienced their consciousness suspended in infinite space. Some have had the experience of unity with all that around. Some have experienced a Divine presence (Newberg, 2010:88).

In comparison, the overall conclusion of the researcher’s survey on the perception of Swami Tyagaya, devotional *Sangeetham*, God, brain and Spirituality denotes that 70.2% of the respondents agree that their involvement in *Sangeetham* and Swami Tyagaya’s composition will increase their interest. 78.8% of the respondents were inspired to devotional music. 78.8% of the respondents agreed that their interest in the God centre in the brain will accelerate. 81% of the respondents approved that they may be motivated towards spirituality. 83.4% of the respondents felt that they were encouraged to practice compassion and tolerance. 86.4% consider
singing devotional songs as a meditational exercise to the brain. 90.3% consider singing to devotional music important. 88.5% like listening to devotional music. 75.2% enjoy listening to Carnatic Sangeetham. 75.9% agree that spiritual feeling is related to God feeling.

The researcher’s observation from the comparative findings is that there is not much of fundamental differences in the application of spirituality in the form of love, tolerance, freedom and compassion but the difference appears in the understanding of God according to the respective beliefs and religion. The local society overwhelmingly supports devotional Sangeetham of Swami Tyagaya having a profound influence in them. God is a mental picture and is expressed as an experience. Women were more comfortable with Sangeetham and God. High socioeconomic status shows greater tolerance. Education encouraged people to be more accepting of neuro-psychological thinking. Faith in Swami Tyagaya is stronger among women and Sangeetham lovers. Those who believe in devotional characteristics of Tyagopanishads are Indians and Carnatic musicians. The environment place a distinct role in the behavioral conditioning. Religion and spirituality influence one another. Spirituality invariably advocates compassion, love, contentment and tolerance.

The researcher illustrates the statistical relevance of the survey findings to the objective of the study and substantiates the merit of the study. The high percentage of the findings demonstrates the value of Swami Tyagaya’s devotional Sangeetham towards spirituality and religion. The advance statistical analysis successfully provides subjective evidences on the values of Tyagaya’s devotion and
his vision of God, Lord Rama. The discussion overwhelmingly reports that Swami Tyagaya’s devotional Sangeetham has complex association with the brain network in relationship to God. The analysis amplifies positively the voices of the hundreds of volunteer who have come forward to tell their experiential views of Sangeetham, Swami Tyagaya, brain, devotion, God and spirituality (Tables 1 to 27). The statistical correlation of the major variables in (Table 28) are significance for the creative power of Swami Tyagaya’s Sangeetham, neuro-psychology and spirituality. The impact of these factors has produced encouraging relevance to the subject of the study.

The six alternative hypotheses have successfully rejected the null hypothesis, (Tables 29 to 34). The alternate hypothesis show valuable affirmative correlation between Sangeetham, devotional reliance, God, brain and spiritualism. These findings indicate that devotional Sangeetham strongly influence the spiritual contemplation and brain activity. The most important findings are that 80% of respondents believe God can be visualized through the consistent practice of devotional music which paves the way for the spiritual enlightenment. 80% of the respondents believe that devotional music motivate towards spirituality and 50% of them judge that Tyagopanishad and Sangeetham are beneficial for spiritual study. 60% of the respondents think that “God image” can be visualized in the brain. 87% of the respondents believe that the most important factor to understand God is to be righteous. 85% of the respondents feel that compassion and tolerance are important for life and 80% appreciate that faith in God is significant. The overall logistic perception is that the local society have strong faith in God, devotional music, Swami Tyagaya’s spiritual experiences and the brain science.
It can be seen from the overall statistical inference that the demographic and the statistical findings have helped to uncover and clarify the communal, scientific and theoretical knowledge on Swami Tyagaya, Sangeetham, Brain, devotion, spirituality and God. The findings and the discussion have illustrated the pattern and nature of devotion and identified the long environmental influence that perhaps creates the state of relaxation of the brain to visualize “God”. The overall logistic perception is that the society believes in God, Devotional music, Swami Tyagaya’s spiritual experiences and the brain science (Table 35 to 39). The subjective survey findings contribute significantly to arrive at a favourable conclusion and prove that the study is properly proved.

The next major evaluation is the outcome from the electro-encephalogram experiment. The EEG data analysis explains significant Alpha and Theta activities in Group A against the two control groups. The Group A, EEG electrical signals percentage are superior to Group B and C brain activity. In Group A, the dominance of the Alpha signal suggests a localized relaxed brain activity and the dominance of the Theta signals are associated to Sangeetham lovers who are in meditative state. The background history of Group A, B & C have assisted to substantiate the importance of Alpha, Theta, Delta, and Beta waves (Table 48).

The emotional state probably is the cause for 83% Theta brainwaves of Group A volunteers. In Group A, the influence of Swami Tyagaya’s Sangeetham has produced 100% Alpha activity in both the stages which denotes a significant evidence for meditational brain state. The Group B & C findings also demonstrates information
of the activity of the brain during the influence of devotional songs but the percentage of Alpha and Theta signals are smaller (Table 53 & 54). The discussion clarifies the nature of Sangeetham and devotion in Group A and identifies the long environmental influence that perhaps creates the state of relaxation of the brain to visualize “God”. The entire Group A volunteers admit that their devotional emotions were heightened and linked with very deep states of both physical and mental relaxation when listening to Swami Tyagaya’s Sangeetham. The Alpha, Delta and Theta findings denotes deep meditational state and relaxed brain activity. The observation of Alpha activity of Group A, incidentally co-related with the EEG research findings of Kasamatsu and R Sudarachari.

The evidences of both the survey and the EEG provide strong statistical significance and scientific implications to the value of the thesis. The survey results and the Alpha and Theta signals are scientifically significant to arrive at a favourable conclusion and prove that Swami Tyagaya’s Sangeetham correlates with the objective of the thesis. This means that in the Group A volunteers the Alpha and Theta signals associated positively and showed that there was a single underlying factor that we may call “God module” in the brain. The concept of “God” exists in the brain as a combination of ideas, sensation and images was explained by Dr Newberg. (Newberg, 2010:43).

The study successfully rationalizes the devotional Sangeetham and spiritual experiences through theoretical and scientific explanations. The thesis explains the comprehension of Swami Tyagaya’s devotion from the perspective of cognitive neuroscience in association with spiritual experience. The study elaborates the
society’s perception on Swami Tyagaya’s devotional *Sangeetham*, brain and spirituality through the valuable statistical evidences. The evidences of the survey, the EEG and the literature assessment substantiates the first, second, third and fourth objective of the current study.

The demographic findings, the questionnaire survey results, the alternate hypothesis and the high percentage of Alpha and Theta waves of EEG in Group A facilitate to uncover and clarify the theoretical and scientific contribution of the study. The EEG results clarifies the scientific involvement of devotional *Sangeetham* and identifies the long environmental influence that perhaps creates the state of relaxation of the brain to visualize “God”. The study shows clear evidences to infer that there is a close link between long term practice of devotional *Sangeetham* and brain changes which can result in spiritual transformation. The study proves that Swami Tyagaya’s devotional *Sangeetham* produces spiritual changes in the brain. The devotional emotion transcends from the physical state to a spiritual state and shape the perception of “God”.

The subjective survey evidences are statistically significant and the objective EEG signals are scientifically significant to arrive at a favourable conclusion that Swami Tyagaya’s *Sangeetham* produces brain circuit changes of spiritual nature allowing the individual to become loving, and compassionate. The study demonstrates the relevance of Swami Tyagaya’s devotional *Sangeetham* in the attainment of divine emotion and God realization.
Therefore, the spiritual emotion stimulates dramatic divine experiences. The study deduces that those who sing and meditate appear more spiritual, compassionate, tolerant and loving to mankind. The contemplative nature of singing Swami Tyagaya’s devotional *Sangeetham* trains the brain to be calm, loving, kind and considerate. This endeavor of cultivating compassion and kindness through *Sangeetham* affects brain regions like amygdale, hypothalamus, anterior cingulate, frontal, occipital and other regions that can make a person more empathetic to other person’s psychological state and shape the perception of God. Swami Tyagaya’s devotional *Sangeetham* creates a meditative effect that makes the brain feel serene, peaceful and sanctified. Dr Sack says, "Music can lift us out of depression or move us to tears - it is a remedy, a tonic, orange juice for the ear. But for many of my neurological patients, music is even more - it can provide access, even when no medication can, to movement, to speech, to life. For them, music is not a luxury, but a necessity (Oliver Sacks, 2011:11).

Neuroscientists have discovered new scanning techniques to learn more about the dynamics of the human brain which will be the scientific tools for the future. Brain researches are beginning to produce concrete evidence for the “God Thought” that Swami Tyagaya envisioned through his *Sangeetham*. Mental discipline and meditative practices can change the workings of the brain and allow people to achieve different levels of cosmic consciousness. The depth of consciousness transforms a divine experience to a state of visualizing God which is understood in transcendental term as something outside the world of physical measurement and objective evaluation. God is a metaphysical connotation of human knowledge.
Thus, the study confirms that Swami Tyagaya’s *Sangeetham* can bring emotional changes in the brain and establish spirituality in the form of compassion, love and divine vision. The direct experience of devotional emotion relaxes the brain’s neurological circuit and heightens the visual and auditory capabilities to see and hear ‘God’ which Swami Tyagaya experienced in his spiritual vision. Swami Tyagaya’s *Sangeetham* is a mental exercise where the senses are saturated with the sight, sound, taste, touch and smell of spiritual heritage and belief. Swami Tyagaya’s spirituality has the ability to discipline and organize the brain to successfully motivate life and control negative activity like anger, hostility and intolerance. Swami Tyagaya’s *Sangeetham* can engage the society spiritually and activate compassionate communication with human kind.

Dr Newberg says, “Music can stimulate the immune system, the motivational system, the aging brain, memory and concentration into good action. The hand and body movements of helps control movement health disorders like parkinson, alzheimer, Tourette’s and Huntington’s disease (Newberg, 2010:30). *Sangeetham* has a role in therapeutic purposes. There should be more scientific studies on Swami Tyagaya’s *Sangeetham* from the stand point of theology, and neoro-psychology

Finally, the researcher ascertains through the literature evaluation of Swami Tyagaya’s compositions and Neuro-psychology about devotional *Sangeetham* and the God module in the brain and thus proves with relevant evidences the first and the fourth objective of the thesis. The researcher establishes the society’s view through
the questionnaire survey a close correlation towards Swami Tyagaya Sangeetham, brain, God and spirituality and thus presents adequate statistics to prove the second objective. The researcher institutes an EEG experiment which correlates relevant brain signals in association with Swami Tyagaya’s Sangeetham and thus provides scientific evidences to prove the third objective. Thus, the study confirms that Swami Tyagaya’s Sangeetham can bring emotional changes in the brain and establish spirituality.

1. Devotional Sangeetham of Swami Tyagaya elevates the mind to a higher spiritual level. God-realization is made easy and convincing by the best means of practicing devotional Sangeetham while the magnitude of the singing endeavour lies in the focus of the action.

2. Spiritual enlightenment is attained through devoted years of intense meditational singing and righteous living which is an environmental conditioning of the brain.

3. The meditational sound vibration throws light on the complex formula of cognitive-perception-realization system in the brain. This spiritual practice (sadhana) culminates in inner peace and happiness.

4. Neuroscience experimentation proves that Sangeetham sensibility sends neurological potentials through the neural circuits which activate new dendrites and synaptic connections causing spiritual emotion. If the will is set on reaching a spiritual goal, the neurons will enhance the sense that a spiritual reality can be experienced.

5. This subtle neural stimulation of the brain activates the perception of the experience and the mind exhibits the neurological phenomenon of the ‘Brahman or God’. Thus, the spiritual sensation of ‘God’ becomes neurologically real.
6. Swami Tyagaya’s Spiritual music reduces fear, anxiety, depression, and stress. It increases feelings of security, compassion, tolerance, humility and love. This spirituality is centered on personal well-being, psychological advancement and moral personality. such as righteousness, forgiveness, love, patience, tolerance and altruistic values. *Sangeetham* can enhance health and can be used as a health therapy.

**Recommendations**

1. It is recommended that further research in the area of Swami Tyagaya’s *Sangeetham* and communication to God is necessary. More studies using randomized controlled trials are needed. The research must focus to improve dialogue and intimacy in relationships in order to produce a compassionate society.

2. The future researches should estimate the levels of electro-chemical transmitters of the brain when subjected to Swami Tyagaya’s devotional singing in order to reduce stress, anger, jealousy and greed.

3. Research in *Sangeetham* and its devotional dynamics using brain imaging scans such as, Functional magnetic resonance imaging (fMRI, PETscans). These kinds of scientific investigation has not been researched till today on *Sangeetham*. The future researches should involve the neural circuits of the emotional centres associated to God sensation.

4. Research on *Sangeetham* as a tool to be incorporated into schools for psychotherapy and into hospitals for health therapy.

5. Further work is needed to understand the possibility positive effect of *Sangeetham* and meditation.