Chapter V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 SUMMARY

Imagine a world, where every baby is welcomed, loved, nurtured, and seen for the amazing, Conscious and aware being they are from the beginning of life. As these babies grow, so does their capacity to love, to empathize with others, to be in relationship and to live in joy. As our first generation matures, we would see the ripple effect grow to encompass greater learning capacity, emotional intelligence and creativity, the emergence of new leaders, and healthier families and communities. Our potential is unlimited. It is time for us to come together to infuse our culture and communities with the vision, resources, and commitment to support each new member from the very beginning of their life.

Expanding access to high quality early childhood education is among the smartest investments that we can make. Research has shown that the early years in a child's life—when the human brain is forming—represent a critically important window of opportunity to develop a child's full potential and shape key academic, social, and cognitive skills that determine a child's success in school and in life.

Today's knowledge base comes from a rapidly emerging set of brain-related disciplines. It isn't published in just highly regarded journals such as Nature, Science, and the Journal of Neuroscience. Every people-related discipline takes account of the brain. As an example, psychiatry is now guided by the journal Biological Psychiatry, and nutrition is better understood by reading the journal Nutritional Neuroscience. Sociology is guided by the journal Social Neuroscience. Some critics assert that

sociology, physical fitness, psychiatry, nutrition, psychology, and cognitive science are not "brain-based." That's absurd, because if you remove the brain's role from any of those disciplines, there would be no discipline. There is no separation of brain, mind, body, feelings, social contacts, or their respective environments. That assertion is old-school, "turf-based," and outdated. If the research involves the brain in any way, it is "brain-based." The brain is involved in everything we do.

Because when you support a mother, you care for the world.

Prenatal yogic stimulation is an educational opportunity for early learning enhancement for the baby during the pregnancy period, and positive bonding experience between parents and their pre-born child. In the concepts and methods to use during the pregnancy period so that parents may learn about their baby's feelings and reactions. Music to creating interaction and communication between mother, father, child, and other family members before, during the birth experience, and during infancy. Together, useful and nicely orchestrated system to create a tactile and audio stimulation program of education for the gestating fetus, and newly born infant and it's family."

The purpose of the study was to find out the effect of selected yogic pre and postnatal stimulation practices on perception of speech, sound, behaviour and development among the infants. To achieve this purpose of the study, forty five healthy pregnant women with the gestation period between 32 and 42 weeks in the area of Chidambaram, Cuddalore District, Tamilnadu, India were randomly selected. The age of the mother were ranged from 20 to 35 years. They were divided into three equal groups of fifteen women each namely pranayama practices group, auditory stimulation practices group and control group. The pranayama practices group underwent Nadi suddhi pranayama and Nadha Anusandhana pranayama twice a day

for seven days a week upto delivery. For auditory simulation practices group, the music and guided imagery relaxation have been used. The music was presented over a 12.5-cm speaker positioned 20 cm above the mother's abdomen as prenatal stimulation for two sessions per day for seven days a week upto their delivery. And Group III acted as control group in which they did not undergo any special training programme rather than their routine work.

After delivery, the infants of the selected healthy pregnant women were selected as subjects and they were assigned with the same group as their mother belongs to. The pranayama practices and auditory stimulation practices were selected as independent variables. The following perception of speech, sound, behavior and developmental variables namely Intermodal Perception, Auditory Perception, Visual Recognition memory and Tactile Perception were selected as dependent variables. And they were tested by using habituation–dishabituation paradigm introduced by Fantz (1958).

The data were collected on Auditory Perception, Visual Recognition memory and Tactile Perception with the selected infants at the end of 4^{th}, 5^{th} and 6^{th} month. The data on Intermodal Perception of the selected infants was collected at the end of 10^{th}, 11^{th} and 12^{th} month. Since, the intermodal perception could be measured only at this period.

The data collected from the three groups at the end of 4^{th} month and at the end of 6^{th} month on Auditory Perception, Visual Recognition memory, Tactile Perception and at the end of 10^{th} month and at the end of 12^{th} month on Intermodal Perception were statistically examined for significant effect of the training programme, if any, applying the analysis of covariance (ANCOVA). Since three

groups were involved whenever the obtained "F" ratio was found to be significant for adjusted post mean, the Scheffe's test followed as a post hoc test to determine which of the paired means difference was significant. In all the cases, .05 level of confidence was fixed to test the level of significance which was considered as an appropriate.

Further, the collected data on auditory perception, visual recognition memory and tactile perception with the selected infants at the end of 4^{th}, 5^{th} and 6^{th} month and the data on intermodal perception at the end of 10^{th}, 11^{th} and 12^{th} month were subjected into a statistical treatment by using 3 x 3 factorial ANOVA with last factor repeated measures to find out the significant differences between rows (groups) and columns (periods). According to Jerry R. Thomas and Jack K. Nelson, whenever the main purpose is usually lies in the interaction, it is sufficient to discuss the interaction effect only, unless some special circumstances exists, interest in testing the main effects is usually limited. Hence, whenever, the obtained "F" ratio for interaction effect was found to be significant, the simple effect test was used as a follow up test. Since, three groups and three different stages of testing periods were compared, whenever the obtained "F" ratio value in the simple effect was significant the Scheffe'S test was applied as post hoc test to determine the paired mean differences, if any. In all the cases, .05 level of confidence was used to test the level of significance.

5.2 CONCLUSIONS

Based on the results of the study, the following conclusions were drawn.

1. There was a significant improvement on the performance of selected perception of speech, sound, behavior and developmental variables namely Intermodal Perception, Auditory Perception, Visual Recognition memory and Tactile Perception due to pranayama

practices and auditory stimulation practices.

2. There was a significant difference among pranayama practices group, auditory stimulation practices group and control group on selected perception of speech, sound, behavior and developmental variables namely Intermodal Perception, Auditory Perception, Visual Recognition memory and Tactile Perception.
3. There was a significant difference between pranayama practices group and auditory stimulation practices group on selected perception of speech, sound, behavior and developmental variables namely Intermodal Perception, Auditory Perception, Visual Recognition memory and Tactile Perception.

4. Among the experimental groups, auditory stimulation practices group was found better than pranayama practices group on selected perception of speech, sound, behavior and developmental variables namely Auditory Perception, Visual Recognition memory and Tactile Perception.

5. Auditory stimulation practices group was found better than pranayama practices group on intermodal perception.
6. There was a significant difference among rows (groups) irrespective of their testing periods on selected perception of speech, sound, behavior and developmental variables namely Intermodal Perception, Auditory Perception, Visual Recognition memory and Tactile Perception.

7. There was a significant difference among columns (different stages of testing periods) irrespective of their groups on selected perception of speech, sound, behavior and developmental variables namely Intermodal Perception, Auditory Perception, Visual Recognition memory and Tactile Perception.

8. There was a significant difference among rows (groups) and among columns (different stages of testing periods) on selected perception of speech, sound, behavior and developmental variables namely Intermodal Perception, Auditory Perception, Visual Recognition memory and Tactile Perception.

9. There was a significant difference between pranayama practices group and auditory stimulation practices group, pranayama practices group and control group and auditory stimulation practices group and control group on intermodal perception at end of 11^{th} month and at the end of 12^{th} month.
10. There was a significant difference between pranayama practices group and auditory stimulation practices group, pranayama practices group and control group and auditory stimulation practices group and control group on auditory perception, visual recognition memory and tactile perception at end of 5^{th} month and at the end of 6^{th} month.

11. There was no significant difference among pranayama practices group, auditory stimulation practices group and control group on intermodal perception at end of 10^{th} month.
12. There was no significant difference among pranayama practices group, auditory stimulation practices group and control group on auditory perception, visual recognition memory and tactile perception at end of 4^{th} month.
13. There was a significant difference between at the end of 10^{th} month score and at the end of 11^{th} month score, at the end of 10^{th} month score and at the end of 12^{th} month score and at the end of 11^{th} month score and at the end of 12^{th} month score on intermodal perception for pranayama practices group.
14. There was a significant difference between at the end of 10^{th} month score and at the end of 11^{th} month score, at the end of 10^{th} month score and at the end of 12^{th} month score and at the end of 11^{th} month score and at the end of 12^{th} month score on intermodal perception for auditory stimulation practices group.
15. There was a significant difference between at the end of 4^{th} month score and at the end of 5^{th} month score, at the end of 4^{th} month score and at the end of 6^{th} month score and at the end of 5^{th} month score and at the end of 6^{th} month score on auditory perception, visual recognition memory and tactile perception for pranayama practices group.
16. There was a significant difference between at the end of 4^{th} month score and at the end of 5^{th} month score, at the end of 4^{th} month score

and at the end of 6th month score and at the end of 5th month score and at the end of 6th month score on auditory perception, visual recognition memory and tactile perception for auditory stimulation practices group.

5.3 RECOMMENDATIONS

Based on the conclusions, the following recommendations were made.

5.3.1 Recommendations to the Society

1. The following recommendations are made with a strong feeling that they would further encourage other professional colleagues and pave a way for further studies in this area.
2. The findings of the study showed that there was improvement in the Infant Visual Recognition memory, Auditory Perception, Tactile Perception and Intermodal Perception variables due to the influence of combination of auditory stimulation training. Hence it was recommended that this training could be included as one of the training methods.
3. Since the combination of auditory stimulation training was identified as the decisive training, it was recommended to the hospitals, clinics and pregnant women to include it in their daily routine.Auditory stimulation practice can be integrated with their life style to develop moderately in infant behavior development in turn it will improve the overall cognitive skills of the subjects.

5.3.2 Recommendations to the Researchers

1. Similar study may be conducted other variables.
2. Auditory training will be of great use for the trained subjects by increasing both the intensity of training and number of training sessions in a week.
3. The intensity of the training and number of training sessions can be fixed according to the age, gender, obesity level and performance level of the subjects.
4. The present study thus, needs to be strengthened or supported by more relevant research studies.