CHAPTER 5
SUMMARY AND CONCLUSION

Raising a child who is mentally challenged requires emotional strength and flexibility. The child has special needs in addition to the regular needs of all children, and parents can find themselves overwhelmed by various medical, care giving and educational responsibilities. These children demand a remarkable capacity for patience, compassion, kindness, and understanding. Whether the special needs of the child are minimal or complex, the parents are inevitably affected. Many therapies have been researched for improving the quality of life of these children. Among the various therapies used for treatment, yoga therapy is a complementary mind body movement therapy. Yoga for children is a relaxation technique that has been found to reduce stress and tension, dissipate excess energy, relieve tiredness, lengthen attention span, improve physical health, sharpen concentration, enhance mental clarity, and cultivate better interpersonal relationships (Seiler & Renshaw, 1978, Peck, Kehle, Bray & Theodore, 2005; Telles, Narendran, Raghuraj & Nagarathna, 1997).

Thus it was deliberately felt that yoga would have a positive effect on the mentally challenged children in their life skills and greatly help the parents in rearing the child. Therefore, the researcher attempted to study the “Effect of yoga on the developmental problems among mentally challenged children and its impact on family life management

OBJECTIVES OF THE STUDY

1. To elicit the background information of the mentally challenged children.

2. To understand the physical, cognitive, speech and communication and behavioral problems of mentally challenged children.

3. To find out the problems faced by the parents of mentally challenged children in family life management.
4. To identify the best and simple yogasanas that suits the selected mentally challenged children.

8. To analyze whether training in yoga helps to reduce the physical, cognitive, speech and communication problems faced by the mentally challenged children.

5. To study whether training in yoga helps to reduce the behavioral problems of mentally challenged children.

6. To increase the independent functioning of the mentally challenged children through yoga therapy and analyze its impact on family life management.

METHODOLOGY

Based on the review of related literature, methodology for the present study was designed. Descriptive research design was used to understand the developmental problems of mentally challenged children. The main study was conducted in Chennai, the capital city of Tamil Nadu, is one among the four metropolises in India. Purposive sampling procedure was adopted to select the mentally challenged children from different special schools inclusive of both boys and girls. The sample consisted of 297 mentally challenged belonging to the age groups from 3 years to 20 years. There were 140 boys and 157 girls. Considering the type of disability, 163 children belonged to MR category, 47 were Autistic children, 39 were ADHD and 38 were CP children. Based on the degree of retardation of the selected sample, 142 children belonged to mild category, 110 children were moderately challenged and 45 children were severely challenged.

In the first phase of the study, interview method was adopted using a schedule to collect the data from the parents and teachers of 297 mentally challenged children.
The schedule consisted of the following sections:

- Demographic and biological information
- Anthropometric assessments
- Developmental problems faced by the child (Tool developed by Sharma., 2002)
- Prevalence of problem behavior among mentally challenged children (Basic MR, Part B Peshwaria, 1990)
- Problems faced by the family having mentally challenged children (Family Burden Scale, Pai & Kapur, 1981)

A sub sample of 80 mentally retarded children representing three degrees of retardation - mild, moderate and severe were selected from the Phase I for Experimental study (Phase II). As part of experimental study simple yogasanas appropriate for the selected mentally challenged children were identified. The same schedule used for Phase I was used to observe the effectiveness of yoga on the selected subjects for the experimental study. The yogasanas were taught to the mentally challenged children by the researcher along with the yoga expert of the Bihar school of yoga.

- Pawanmukthasana (type of yogasanas: simple physical postures (in the standing, sitting, prone and supine positions) with smooth, comfortable bending movements and specific slow breathing procedures; the asana practices were performed with the subject maintaining the final posture with the body relaxed (35 min); savasana is performed last;)
- Pranayama - nadi sodhana pranayama / bhramari pranayama (10min)
- Surya Namaskar (salutations to the sun by 12-count yoga postures) (10 min)
- Yoga Nidra - healing of the body and mind and the expansion of consciousness through conscious relaxation(5 min)
Using the tools selected the data was collected from the parents and teachers of mentally challenged children during the academic year 2010 – 2011. The collected data was coded based on the scoring procedures developed for individual scales and then analyzed with the help of statistical package for social sciences (SPSS version 18). The statistical technique that were applied to analyze the data included descriptive analysis, Chi-square ‘t’ Test, One way analysis of variance, Duncans; multiple range test and correlation analysis.

MAJOR FINDINGS OF THE STUDY

The following conclusions are arrived from the results of the present study.

**Biological details of the mentally challenged children**

Majority of the mentally challenged children were above 15 years of age hailing from nuclear family. Out of the total sample, 55% of the children belong to the mental retardation followed by ADHD (16.5%), Autism (15.7%) and cerebral palsy (12.8%). Comparing the degree of retardation, nearly 47.8% of the mentally challenged children suffered from mild retardation followed by moderate (37%) and severe (15.2%). None had profound retardation.

Most of them were first born to their mothers and a higher percentage belonged to middle-income group. Type of delivery and nature of birth had an impact on mental retardation. Instrumental delivery and babies born premature were at heightened risk of cognitive impairment. Sensory impairment, microcephaly and hydrocephaly were other associated conditions, which prevailed among the selected sample.

In the health related problems, most of the mildly (85.3%) and moderately (82.3%) retarded children had respiratory and digestive problems. epilepsy was most common among severely retarded children than other categories. Significant association existed between developmental delayed milestones and degree of retardation. Severely retarded children had more delayed milestones followed by moderate and mild category. Walking without support was delayed in almost all the three categories, followed by meaningful speech.
Developmental problems of mentally challenged children

Physical development problems

There was a significant difference in the height and weight of the mentally challenged children based on the chronological age. The problems in motor skills among the selected mentally challenged children revealed that children had more problems in fine motor skills than gross motor skills in all the three groups. Among the kind of disability, CP children had more problems compared to children having Autism, MR and ADHD. In the problems faced by the mentally challenged children in performing their daily activities, severely retarded children were more dependent than moderate and mild category of children. Reading and writing activities, bowel control and bladder control were found to be more difficult problems faced by the children.

Cognitive development problems

Difficulties in learning by observation or imitation, lack of imaginative play, dullness in class, were the major cognitive developmental problems found among all the three categories of mentally challenged children. Significant differences existed in the cognitive developmental problems based on kind of disability. MR children had more problems followed by autism and ADHD. Less cognitive developmental problems existed among CP children. Considering the degree of retardation, severely retarded children had more problems in the area of cognition than moderate and mild category.

Speech and communication problems

Age wise speech, understanding of language according to age and clarity of speech were the major speech and communication problems that existed in all the group of mentally challenged children. There was a significant difference found among the kind of disability, it was found that children with autism had more problems in communication, followed by MR children. Analysing the problems based on degree of retardation, severely retarded children had more problems in communication than moderate and mild category.
Behavior problems

Parents found it difficult in dealing with the various behavior problems of mentally challenged children. The parents felt that except anti-social behavior problems, all others problems mentioned by the researcher was found common among mentally challenged children. Severely retarded children had a higher percentage in all the behavior problems compared to mild and moderate types. Autistic children had more behavior problems compared to other groups of children considered for the study. On the contrary, teachers differentiated the behavior problems among boys and girls, based on degree of disability and kind of disability. Violent and destructive in their behavior was most common among boys when compared to girls. Temper tantrums, odd behavior and fear towards animals, noise were common among girls. Significant difference existed in the behavior problems expressed by mild, moderate and severely retarded children. Considering the kind of disability, autistic children had more violent, destructive and self injurious behavior. CP children had more repetitive, fear behavior problems. Hyper active behavior was prevalent among ADHD children.

Family life management of families with mentally challenged children

Degree of retardation had a direct impact on the family members in dealing with the mentally challenged children. Families with severely retarded children felt more physical and psychological stress in handling their children compared to mild and moderate category. Based on the kind of disability, parents with CP and MR children were more burdened compared to other groups taken up for the study. Significant association existed between family management problems and income of the family. Family type had an impact on the family management problems. Extended families had more family management problems in bringing up the mentally challenged children compared to joint and nuclear families. Birth order had no impact on the family management problems.
Phase II

Effect of Yoga therapy on the developmental problems of mentally challenged children

There was a significant difference in the body weight measured before and after yoga training for 3 months and 6 months in the experimental group mentally challenged children compared to that of the control group. Within the experimental group, changes in the weight was observed in the moderate and severely retarded boys and mild and moderately retarded girls. The problems faced by the mentally challenged children while performing the daily routine like bowel control, bladder control was slightly reduced in the experimental group after yoga training compared to the control group. Yoga intervention was found to be effective in improving the motor skills of the mentally challenged children. Comparing the experimental and control group based on the degree of retardation, the children belonging to the moderate and severely retarded category had a significant change after 6 months of yoga training than the control group. Analyzing the effect of yoga within the experimental group, moderately retarded children showed tremendous improvement followed by severely and mild category.

There was a significant difference between the experimental and control group in the cognitive development problems faced by the mentally challenged children after yoga therapy. Considering the effect of yoga within the experimental group, severely retarded children showed considerable improvement followed by the moderate and mild category. Thus parents of severely retarded children were very much impressed with the effect of yoga therapy on the cognitive development of their children,

Effect of yoga on the speech and communication problems was found to be satisfactory. Children in the experimental group showed good improvement compared to control group. Changes were observed within 3 months in the experimental group of mildly retarded children followed by moderate category. Severely retarded children recorded very less improvement.
A significant reduction in health related problems faced by the mentally challenged children was observed among the experimental group after doing 6 months of yoga therapy. Yoga was effective among mild and moderate category of children compared to severely retarded children.

Probing into the effect of yoga on the behavior problems of mentally challenged children, parents of mildly and severely retarded children were of the view that many of the behavior problems reduced after yoga therapy. the moderate category children showed a gradual reduction in the behavior problems only after 3 months of yoga therapy.

Teachers also expressed satisfactory improvement in the behavior of the children after yoga therapy. The experiment group showed remarkable improvement in their behavior compared to the control group.

Behavior problems such as violent behavior, misbehavior, repetitive behavior, hyperactive got reduced after 3 months of yoga training and further reduced after 6 months of yoga in the experimental group. Destructive behavior & temper-tantrums behavior problems got slightly reduced after 6 months of yoga training. Considering self Injurious and anti-social behavior, changes were observed in the mild category only after 6 months and no change was observed in other two groups. Rebellious behavior problems got reduced among all three categories of mentally challenged children belonging to the experimental group. Analyzing the hyperactive behavior problem, changes were observed after 3 months in mild and moderate category and only after 6 months in severely retarded children. Mild and moderate category of children belonging to experimental group showed a tremendous change in their odd behavior problems compared to severely retarded children. Fear behavior problem was reduced only in the mild category.

Among all the behavior problems within the experimental group that was observed, yoga had an significant impact on violent, destructive, rebellious, misbehavior, and repetitive. Other behavior problems had comparative less impact after yoga therapy. For all behavior problems, there was no change in the control group.
Effect on the Yoga therapy on the families with MR children

Effect of yoga on family life management problems between the experimental and control group of MR children was found to be less significant. However, during the pretest, post test I and post test II, the family burden decreased among the experimental group compared to control group. Reduction in the family problems was found after 3 months of yoga therapy in the families with mild and moderate category of children. In the families with severe category of children the changes were observed only after 6 months of yoga therapy. Though the parents felt a positive change in the development of their children, they were of the view that family management problem remained the same.

Considering the relationship between the developmental problems of mentally challenged children and family life management problems before and after yoga therapy, parents expressed that even though the developmental problems have reduced, their family life burden remained the same.

Analyzing the relationship between the behavior problems and family life management problems, effect of yoga had a good impact on the family life management. Reduction in the destructive and hyperactive behavior among severely retarded had a positive change in their families changes in the behavior problems like mis-behavior, self injurious behavior and hyperactive behavior among mildly retarded children brought a significant change in their families. Though the parents of moderately retarded children felt a reduction in the behavior problems of their child, they opined that the family management problems remained the same.

Effect on the Yoga therapy on the families with MR children

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LIMITATIONS OF THE STUDY

- Due to varied prevalence rate of mild, moderate and severely retarded children, selection of equal number of sample in each category was difficult.

- Each child is unique which made the researcher difficult in analyzing the cause and effect pattern of the selected variable.

- Tools appropriate for the selected variables were very few.

SUGGESTIONS FOR FUTURE RESEARCH

- Spread of awareness among young women to prevent birth of mentally challenged children through yoga practice.

- Coping strategies of parents with mentally challenged children – Yoga as an intervention.

- A study to bring awareness among parents of mentally challenged about the facilities provided by government and non government agencies.

- Mainstreaming the mentally challenged children in schools and colleges- Role of teachers and peer group.

- Comparison of yoga therapy with other therapies on mentally challenged children.

CONCLUSION

The researcher found an increase in flexibility in many of these mentally challenged children and a willingness to try anything; an ability to remember many of the asana and the order in which it was often done. The children had an increased
awareness of their body parts; being able to breathe more slowly and deeply in some of the classes and became calmer by the end of each session. Health related problems like digestive and respiratory got reduced among the experimental group. The behavior problems like hyperactivity, violent, self injurious and destructive behavior reduced significantly after the yoga intervention. It was difficult to teach meditation to these children although it is the most essential component of yoga for better brain functions. Hence Chanting of AAA, UUU, MMM, and Om as well as loud chanting of longer mantras gave the same effect in these children. This was useful in maintaining their concentration and improved their alertness with rest and relaxation. An attitude of fun, love, trust, perseverance and patience was needed for this study and had a tenfold reward. The sense of perception is tremendous in these children and it gives immense pleasure and satisfaction to be with them, to be a part of them- one amongst them. They teach us a lot – the harsh realities of what life is all about. They live their life as God has given it to them; accepting it gracefully making no complaints about it. They are the Special Creations of the Divine’s unfathomable play. Thus it can be authentically said that these practices of yoga make mentally challenged children joyful and happy, making them jubilant, improving their quality of life, giving them a sense of well being, apart from the other benefits.