CHAPTER III

REVIEW OF LITERATURE
A BRIEF OF SOME RESEARCH STUDY
ON THE EARLY INTERVENTION PROGRAMME
FOR CHILDREN WITH SPECIAL NEED

Early childhood intervention is young and rapidly growing field. The importance of early experience for the infant and child seems to be based on a widely held premise that early experience is essential for later development because continuity exists between early behaviour and subsequent behaviour. The notion of continuity is fundamental to prevention and early intervention efforts.

Increased medical knowledge, with the advent of 'Neonatal Intensive Care Unit' permits successful management of smaller and sicker newborns; two issues have taken on growing importance. The first issue concerns the ethics involved in the saving and maintenance of severely impaired newborns and the second issue concerns the type of care or stimulation that will maximize biological and psychological growth in biologically 'at risk' infants.

A number of longitudinal studies of at risk infants (primarily preterms) have been conducted. Four of the more ambitious are the San-Francisco study (Hunt 1981), Springfield study (Field, Dempsey and Shuman 1981), Staten Island study (Caputo, Goldstein and Taub, 1981) and Los Angeles study (Sigman, Cohen and Forsythe, 1981). The outcome of these four longitudinal studies had been analysed by Soboloff (1981) who reported that in three of the four studies, "The single most potent factor influencing developmental
outcome turns out to be the cultural environment of the child as expressed in socio-economic status and parental educational level" (pp. 392). Further, Soboloff noted that "No single factor, either birth weight alone or accompanying physical problems, clearly predicts a specific developmental outcome".

Inspite of our inability to predict those at risk infants who will thrive and those who will not and the equivocal outcomes of intervention efforts (Cornell & Gottfried, 1976^8, Gibson & Fields, 1984^12), a number of researchers and clinicians see value in offering early intervention programmes to infants at risk.

Abecedarian, Milwaukee and Perry projects were three most well known and influential programmes in United States. Each programme provided an intensive and long term intervention to children who were either suspected of being at risk for retardation (Abecedation, Milwaukee) or who were already identified as retarded in their early years (Perry).

The Abecedarian project was begun as an attempt to bring together a multi-disciplinary team of researchers who had address themselves both to demonstrating that developmental retardation could be prevented and to examining how various psychological and biological processes were affected by such preventive attempts (Ramey & Campbell, 1984)^18.

Four Cohort groups had participated in the programme of research. In each Cohort, matched pairs of
subjects had been randomly assigned to experimental or control group. Experimental subjects had received the intensive early intervention programme at the day-care facility. This intervention was begun in the first three months of life, had lasted until the child was ready to enter school and involved the child's participation in a systematic, child directed programme for 6 - 8 hours per day, 50 weeks per year, (Ramey and Campbell, 1984). The result was that experimental group children had been found to perform significantly higher on I.Q. tests than control group children. Experimental group children were socially confident and more active and effective in their interactions with their mothers than were the children in the control group. But these increased social skills had not helped the experimental group children in their early grade school years, as they were more hostile (and as more intelligent) compared to control group children (Ramey C.T. and Haskins, 1981).

Zigler and Berman in 1983 said that—"It seems safe to conclude that the Abecedarian project is a thoughtful and welldone effort that represents an ideal case for testing the prospective value of the center based curriculum and heavy pre-school enrichment approach".

Results of Milwaukee programme were similar to those found in the Abecedarian project. The I.Q. scores of experimental group children had been approximately 20 - 30 points above those of control group children (Garber & Heber, 1977).
The Perry pre-school project was begun in 1962. It was the only programme that had provided information on the outcome of its subjects up to 19 years of age.

The results of experimental group children demonstrated a 10 - 15 point increase in I.Q. scores when they were 4 and 5 years of age, but they gradually lost their advantage over the control group in later year. By the age of 8, the experimental group advantage was minimal (2 - 3 points) and by 11, the two groups were identical. These findings are in accordance with the general finding of the fade out of I.Q. going in the years after intervention programmes have ended (Bronfenbrenner, 1975)\(^6\).

The programme's effects on achievement test scores and on real life outcome measures seem more promising. Experimental group children outperformed control children on the California Achievement Tests at every age throughout the elementary and middle school years. "Differences favouring pre-school children were between 5 - 7% of items passed from age 7 - 10 age, but dropped to 2% at age 11. At age 14 there was highly significant difference of 8% of items passed in favour of children who attended pre-school (Schweinhart and Weikart, 1980)\(^24\).

Experimental group children also report that they had participated in a smaller number of delinquent behaviours than reported by control group children and teacher of experimental group children rated them as having better relationships with other classmates and with their teachers than did control children (Berrueta, Schweinhart, Barnett, Epstein, Weikart, 1984)\(^2\).
An investigation conducted by Ludlow and Allen in 1979, in which the progress of three groups of children with Down Syndrome was compared over a 10 year period. Group A (N : 72) was composed of children living at home, who attended at least two years of preschool before their fifth birthday and whose parents received counselling. Group B (N : 79) was composed of children living at home whose family received no counselling. Group C (N:37) was composed of children placed in a residential placement before their second birthday.

Using Griffith's Scale, the children's development was compared from birth to 10 years. Rapid decline in development for all groups during the first three years was reported. For Group A, development continued to decline slightly until age 10. For Group B, development declined until age 5 and then stabilized until age 10. For Group C, the initial sharp decline was modified, but the downward trend occurred at age 10. A measure of personal, social development and speech development found Group A functioning significantly better than Group B and C.

In 1981, a project described by Rosen, Mooris and Sitkei, in which highly structured classroom programme was developed for severely handicapped infants and young children; subjects in Rosen-Mooris project ranged in age of 18 months to 6 years. Approximately, 50% of the children had cerebral palsy while the remaining had a combination of sensory impairments, Down syndrome and epilepsy.
Three measures were used to assess programme impact. The Bayley scale of Infant Development, the Student record card and the Pre-school attainment record, testing was done initially and then a month's fall. Bayley mental and motor age equivalency scores were reported on 11 children. Scores indicated a reliable change. Thirty students were included in the pre-post analysis of the student progress record and pre-school attainment record. The results indicated a significant change on both measures.

In 1981, Soboloff, reported a project in which 50 cerebral palsied children seen in a clinic from 1952-1965, but not enrolled in any early intervention programme, were compared with 50 C.P. children seen between 1965-1975 and enrolled in an early intervention programme.

A number of comparisons were made. First, the percentage of children having some form of corrective surgery was examined and the results indicated that in the group who had early intervention 19% had surgery, while only 9% of the non-intervention group had surgery. Second, the records indicated that the early intervention group developed mobility and ambulation earlier. Third, comparison of family reactions also favoured the early intervention group.

Finally, the number of individuals from the two groups functioning in normal social setting (Mainstreaming) were not different. These findings led Soboloff to conclude, "In the present study there was no question that early stimulation was effective."
Bricker and Sheehan (1981)\textsuperscript{4}, and Bailey and Bricker (1985)\textsuperscript{1} examined pre-test, post-test differences of five sub-groups of children (normal, at risk, mild, moderate and severe) on a number of dependent measures and found that although differences were generally statistically significant, the less severe the degree of impairment the more progress that was likely to be made.

The earliest efforts focused on the amelioration of developmental deficits through general programmes of sensory stimulation based on the assumption that early stimulation could offset subsequent developmental delays. The child was the primary target of intervention.

The last decade has seen a dramatic increase in research programmes and policies designed specifically to examine and improve the capabilities of families to cope with the presence of a disabled child.

Gallagher et al. (1981)\textsuperscript{10} found that the mother's ego, strength and self-confidence were amongst variables associated with successful adaptation to the home care of moderately to severely handicapped pre-school children.

Rosenberg and Robinson (1984)\textsuperscript{23}, conclude that lack of education, financial stresses, long working hours, limited intellectual ability or chronic illness may negatively affect the mother's ability to care for a handicapped child.

Bristol in 1985\textsuperscript{5} found that low social class families of autistic children often expressed less
distress over their child's handicappness, apparently because the child's limited occupational prospects were not seen as deviant.

Other researchers have found no relationship between psychological and demographic variables and adaptation (Bradshaw and Lawton, 1978).³

These mixed findings highlight the importance for future research of measuring demographic characteristics in a uniform way.

In a "review of reviews" White, Bush and Casto in 1985-86²⁸ found that 94% of a sample of 52 previous reviewers had concluded that early intervention had substantial immediate benefits for handicapped, at risk and disadvantaged children. These immediate benefits included improved functioning of the children's parents and their siblings. But this is disconcerting because the conclusions drawn about the effectiveness of early intervention have been largely drawn from studies which utilized at risk or disadvantaged sample. White and Casto in 1984²⁷ found that only 20% of the effect sizes in their meta-analysis or early intervention efficacy literature came from studies that used handicapped samples, while 80% came from studies that used at risk or disadvantaged population.

RESEARCH REVIEW OF EARLY INTERVENTION PROGRAMME FOR CHILDREN WITH SPECIAL NEED - INDIAN SCENARIO:

It has been found by UNICEF Report (1985-1989) that in India there are 110 million children under six years of age, out of which about 50% belong to
families in poverty. Government of India had started scheme of fifth five year plan (1975-80) especially to improve the quality of life of these pre-schoolers. In 1988 Jyostna Borua\textsuperscript{15} (Assistant Professor, Department of Child Development and Family Relation) had found during her research work on early childhood education in the State of Assam that despite the various steps, much attention has not been given to the early children education for the young children. Till date there was no official recognition of pre-primary education or minimum standard for the same. A very slow progress of pre-primary education in the State was also reported.

In 1987\textsuperscript{14}, J.Sobha revealed from her research on "Cognitive Development of Children (residing in slums) attending balwadi versus those not attending balwadi". Children attending balwadi were found better than who did not attend balwadi, in all languages and cognitive abilities. She observed that the cultural, psychological, nutritional and environmental background of children from low social & economic group simply prevent them from developing adequately. Given good opportunities, these children would approach the same level of growth.

Pramila Phatak et al, (1988)\textsuperscript{17} from K. E. M. Hospital, Pune had done longitudinal evaluation of mental and motor development of high risk babies during first two years of life. The objective was to get insight into development of high risk babies selected by the pediatricians in comparison with that of normal babies. 100 high risk and 24 normal babies were recorded on Bayley Scales of Infants. It was observed that high
risk babies had lower performance on motor and mental scales till 18 and 24 months respectively. Their performance patterns tends to be negative with significant association with father's education.

Thus, in India there has been hardly any studies done on the intervention programme for environmentally disadvantaged children. Research on effect of early intervention on the development of mentally retarded children is in progress. Some have observed good effect of early intervention but statistical data are not available.

REFERENCES


