

Family and intellectual development of children

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■ **ABSTRACT :** The family has a profound impact on the development of children. This pilot study aimed at investigating family environment and intelligence of children. Sample consisted of 20 pre-school children and their mothers (half belonged to above poverty line and half from below poverty line families). Home inventory for families of preschoolers (Caldwell and Bradley, 2001) and parent involvement scale (Chopra and Sahoo, 2005) were used to judge the environmental conditions of children in their home. Intellectual development of children was assessed by Stanford Binet Intelligence Hindi adaptation Scale (Kulshreshtha, 1971). The results revealed that children belonged to privileged families had got significantly better family environment as compare to underprivileged children. Home environment and parent involvement were found to be positively and significantly correlated with intellectual development of these children.

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Each child is born with certain characteristics and abilities that he inherits from his parents. Though each child is unique, child's development follows a universal pattern. Development of children is also influenced by their immediate surroundings. The ecological systems theory views that the child as developing within a complex system of relationships affected by multiple levels of surrounding environment, the innermost being the micro system involving the family and parents (Berk, 2003). A child's family and home environment has a strong impact on his/her optimum development and educational achievement. This impact is stronger during the child's early years but continues throughout their school years.

Nagaraja (1986) also agreed that among all environmental factors, family is typical seen as the most

important influential agency in the socialization of the child. A number of studies showed enriched and stimulating home environment help in advancing the overall development of the child. As children from disadvantaged home have poor cognitive abilities as compared to their relatively well off counterpart. Kartz and McClellan (1997) revealed that intelligence level of children was significantly affected by parental education, parental occupation, income, number of family members, standard of housing and cultural setting at home. In addition, better test scores were obtained by samples who received support and encouragement from their parents, whose parents had frequent contacts with the teacher and higher educational aspirations. Evidence of researches indicated that quality of the home environment was associated with intelligence of children

aged between six and eight years (Baharudin and Luster, 1998). Numerous studies have documented that significant relationship between intellectual development and socio-economic status. Further, the age of child, number of siblings, family size and type, caste, education of parents, family income and occupation of father as reflected in the socio-economic status reportedly had a significant impact on cognitive level of children (Dixit and Moorjani, 1983; Kumari and Chhikara, 1998 and Archana, 1998). They indicated through their study that the high socio-economic status group is intentionally superior than the low socio-economic status group which can easily be described as an intellectually average.

Wahlsten (1997) well-controlled adoption studies carried out in France and found that transferring an infant from a family having low socio-economic status (SES) to a home where parents have high SES improves childhood IQ scores by 12 to 16 points or about one standard deviation, which is considered a large effect size in psychological research. Kumari and Chhikara (1998) used Bayley Scale of Infant Development (BSID) and Home Observation for Measurement of Environment (HOME) for studying the relationship between cognitive development and home environment of rural infants. A significant positive correlation was found between cognitive development and home environment. Family environment of gifted and non-gifted children were compared in a study (Landau and Weissler, 1993). Groups for environmental stimuli were made depending upon academic achievement of parents, cognitive interaction between parents and children, attitudes of parents toward the intelligence of their children and personality traits of parents and significant differences were obtained between difference groups. Gottfried and Drurilla (1994) studied the impact of family environment on gifted and non-gifted children and observed the promoted cognitive growth in non gifted children reared in enriched environment with cohesive family relationships.

As mentioned earlier that intellectual development is highly influenced by a good home environment and parental participation in child's activities. Deprivation in such experiences in the early years could lead to delay in attainment of developmental tasks and would eventually face academic difficulties. Therefore, it is important to sensitize the parents regarding importance of them in child's life. The present study investigates the

effect of home environment and parental involvement on intellectual development of advantaged and disadvantaged children.

■ RESEARCH METHODS

For the present study, a sample of 20 children and their mothers were selected from Faizabad district of Uttar Pradesh. The study adopted descriptive approach of assessing family environment and intellectual development of children in the age group of 3-6 years. Half of children were belonged to advantaged families and half from disadvantaged families. The home environment of the children in both groups was measured through Home Inventory by Caldwell and Bradley (2001). Parent involvement scale (Chopra and Sahoo, 2005) was used to judge the environmental conditions of children in their home and Stanford Binet Intelligence Hindi Adaptation Scale (Kulshreshtha, 1971) was used to assess the Intellectual development of children. Data was tabulated and statistical analysis was conducted to know the significant differences between the two groups. The data was analysed by applying percentage, mean, standard deviation and correlation co-efficient.

■ RESEARCH FINDINGS AND DISCUSSION

The findings of the present study as well as relevant discussion have been presented under following heads :

Levels of home environment :

The perusal of data in Fig. 1 reveals that most of children who belonged to privileged family had got good (60%) and average (40%) level of environment at their home, respectively. Alarming picture disclosed by findings

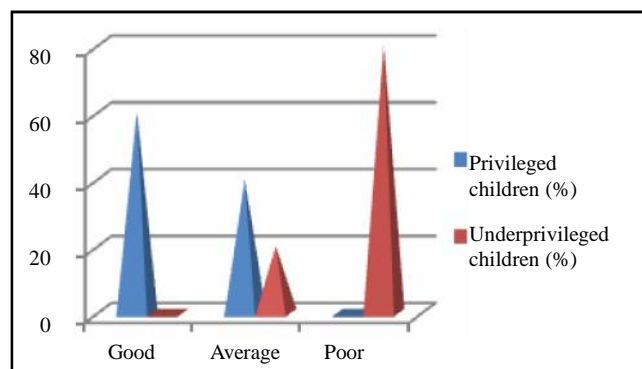


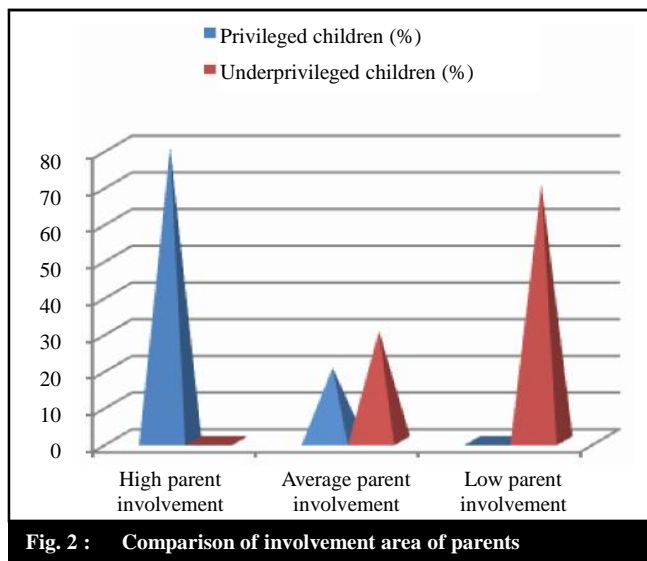
Fig. 1 : Levels of home environment

that maximum underprivileged children (80%) had got poor environment, only few (20%) children found average level of environment at their home.

Levels of parent involvement :

As Fig.2 depicts that in privileged group, maximum mothers (80%) were highly involved in their children’s life followed by average category of involvement, while in underprivileged families, most of the mothers had low level of involvement (70%) in their children’s life and only thirty per cent underprivileged mother had average category of involvement.

The Table 1 pinpoints that the involvement of



privileged children’s mothers were significantly different as compared to mothers of underprivileged children. On the basis of mean values, the mothers of privileged children were more involved with their children at school

Table 1 : Comparison of involvement area of parents against socio-economic status of children

Involvement area of parents	Privileged children mean±SD	Underprivileged children mean±SD	t- value
School involvement	24.30±1.49	14.50±4.17	6.99*
Home involvement	36.40±1.84	27.10±4.70	5.53*
Involvement through PTA	22.80±4.98	11.90±2.02	6.41*
Total parental involvement	83.50±5.04	53.50±10.72	8.01*

*Means differ significantly within the row at 5 per cent level of significance

(M=24.30), home (M=36.40), through PTA (M=22.80) and their overall involvement (M=83.50) while mothers of underprivileged children were less involved at school, home and through PTA with mean score of 14.50, 27.10 and 11.90, respectively. This table also portraits highly significant differences in involvement of mothers and its sub aspects, *i.e.* school involvement, home involvement and involvement through PTA (t-value= 6.99*, 5.53*, 6.41*, respectively) at 5 per cent level of significance.

It can be concluded that mothers of advantaged children are more aware about their children and they fully involved with them at home as well as in different activities of school and also through PTA as compared to children of underprivileged children.

Table 2 elucidates comparison of home environment and intelligence of privileged and underprivileged children. It is appeared that children of advantaged families had got significantly different (t=8.77*) environment than disadvantaged children at 0.05 level of significance. Mean score disclosed that privileged children (M=48.0) had got good environment at their home as compared to underprivileged children (M=27.0).

Table 2 : Comparison of home environment and intelligence of children against their socio-economic status

	Privileged children mean±SD	Underprivileged children mean ±SD	t- value
Home environment	48.00±4.57	27.00±6.07	8.77*
Intelligence	104.10±4.51	86.00±7.15	6.77*

*Means differ significantly within the row at 5 per cent level of significance

Further, the mean scores determined that the privileged children (M=104.10) scored more on intelligence test than underprivileged children. Concluding the result, it can be interpreted that mothers of privileged children gave proper care and stimulation to their children at home than mothers of underprivileged children. Privileged children had performed very well on intelligence test, while underprivileged children did not perform upto their chronological age.

Present study provided evidences that majority of the underprivileged children received poor stimulation at their home.

The correlation of different aspects of family environment with intellectual development of the children

in Table 3 depicts that the home environment was positively and significantly correlated with intellectual development ($r=0.87$). Similarly, areas of parental involvement *i.e.* school environment ($r=0.78$), home involvement ($r=0.72$), involve of parents through PTA ($r=0.69$) and overall involvement of parents ($r=0.78$) were positively and significantly correlated with intellectual development of children, these r values are significant at 5 per cent level of significance.

Table 3 : Effect of home environment and parental involvement on intellectual development of children

Dimensions	r-value
Home environment	0.87*
School involvement	0.78*
Home involvement	0.72*
Involvement through PTA	0.69*
Total parental involvement	0.78*

*indicates significance of value at $P=0.05$

Result concluding that home environment and parent involvement were strongly influenced intellectual development of children. Rich home environment and stimulation provided by parents upgraded intellectual development of privileged children and *vice versa*.

The above findings get support from previous research studies. Manocha and Balda (2011) explained that mothers exposed low level of stimulation for language development, physical environment, variety in stimulation and maternal attitude and discipline to their children in rural area. The study conducted by Pooja (1997) also supported the above results. She observed that low stimulation was provided by the mothers for intellectual development of the children. Manocha and Narang (2006) also reported that majority of rural women provided poor home environment to their children. Saini (2011) agreed that most of the rural families provided low quality of home stimulation to their children. In addition, study also revealed that poor performer received low category of home stimulation as compared to other children. Saini (2011) also supported that slow learner children found below average home environment than normal children.

Replicating previous studies, the present research also found significant evidences for links between home environment and intellectual development of the children. The findings of this study agreed with earlier studies reported by Huston *et al.* (1994) and Duncan *et*

al. (1997). They concluded that the children raised in low income families scored lower than children from more affluent families do on assessments of health, cognitive development, school achievement and emotional wellbeing. The studies used various cognitive tests revealed strong relationships with family income, some showing a linear effect across wide ranges of incomes and others finding stronger effects at lower levels of income (Smith *et al.*, 1997). Parental involvement has a positive effect on children's achievement even when the influence of background factors such as social class and family size have been taken into account (Desforges and Abouchar, 2003). There is a close relationship between high quality of family context and high socio-economic status and between low quality of family context and low socio-economic status (Bornstein and Bradley, 2003). Landry *et al.* (2001) also reflected a connection between maternal responsiveness and subsequent cognitive growth of the child. Mothers who were consistently responsive to their child had children with higher cognitive growth in comparison to mothers who were inconsistent in their interactions with their child. Not surprisingly, being raised in poverty has been linked with unfavourable early cognitive, verbal and behavioural outcomes for young children (Aber *et al.*, 1997 and Brooks and Duncan, 1997; Dearing *et al.*, 2001 and Smith *et al.*, 1997). Several results emerged from the growth curve analyses of longitudinal data set confirmed these findings that both HOME and SES influence the intelligence scores of children between the ages of 3 and 6 years (Gottfried, 1984; Gottfried and Gottfried, 1984 and Espy *et al.*, 2003).

Conclusion:

At the end of the research, it can be concluded that majority of the underprivileged children had got poor home environment and their parents had no less interest to participate in their children's life, as resulted maximum children did not performed good on intelligence test and had mental age below their chronological age. On the other hand parents of privileged children had given good environment and mothers were fully involved in their child's life, these children had good intelligence. Intellectual development of children was strongly influence by home environment and parental involvement of children.

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