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Influence of Home Environment on Psychological Abilities of Children

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ABSTRACT This paper investigates quality of home environment and psychological abilities of underprivileged children of rural Haryana. To achieve the main objectives of the study, 400 children belonging to lower income group were selected randomly from Hisar and Ambala districts of Haryana state. The home environment was assessed by Mohite's Home Environment Inventory, and psychological abilities of the children were measured by McCarthy Scales of Children's Abilities Scale. The results showed that the majority of underprivileged mothers provided poor home environment to their children. Most of the children of Hisar and Ambala districts repoted in the present study had mental age below their chronological age and had poor verbal, perception, quantitative, memory, motor abilities and general cognition. Deprived home environment influenced developmental levels of the children which resulting poor verbal, perception, quantitative, memory, motor and general cognition.

INTRODUCTION

Childhood is a time of significant emotional, social, cognitive and physical development. Children in middle childhood learn new skills, make independent decisions and increasingly control their own behaviour and emotions. Children's psychological development includes the capacity to perceive, analyze, learn and experience emotions. Cognitively, children begin to reason around the age of six, and as they move through the middle years, they develop key conceptual skills. They acquire fundamental skills, such as reading and arithmetic and also develop skills of self-awareness and the ability to see the perspective of others (Advisory Committee on Population Health and Health Security 2004). Evidence of researches indicated that the quality of home environment was associated with the intelligence of children aged between six and eight years (Baharudin and Luster 1998). Sunitha and Khadi (2007) reported that parents who provided more stimulating and richer environment and interacted more had children with better cognitive skills. No doubt, children's development is inextricably connected to the social and cultural influences that surround them, particularly the families and communities that are children's *life-support systems* but many of the children younger than eight years in developing countries are exposed to multiple risks including poverty, malnutrition, poor health and non-stimulating home environments, which detrimentally affect their cognitive, motor and social emotional development. In India alone, there are about 65 million disadvantaged children (UNICEF 2005). Though poverty alleviation programs are at forefront of the nation's socio-economic agenda, the children from poor homes continue to suffer from the disadvantage of being underprivileged. Considering the importance of childhood years, the present study was planned to assess the home environment and psychological abilities of underprivileged children.

RESEARCH METHODOLOGY

The present study was conducted purposively in Haryana state. Out of five cultural zones of the state, two zones Nardak and Bagar were selected. Ambala and Hisar districts were selected randomly from Nardak and Bagar zone, respectively for collecting data, and eight villages were selected randomly from two zones (four villages from each district), that is, Shahpur, Ludas, Harikot and Kamri of Hisar district and Sultanpur, Karsan, Pathredi and Akbarpur of Ambala district for the present research. Four hundred children (25 male and 25 female from each village) in the age group of 6-8 years were selected randomly. Home Observation Inventory developed by Mohite in 1989 was used to assess the levels of stimulation the children received in their homes and McCarthy Scales of Children's Abilities scale (McCarthy 1972) was used to measure psychological abilities of the children, that is,

verbal, perception, quantitative, memory, motor and general cognition. Frequency, mean, standard deviation and correlation coefficient were used for statistical analysis of data.

RESULTS AND DISCUSSION

Levels of Children's Home Environment

The perusal of data in Table 1 reveals the levels of stimulation the children received at home by their mothers. On the whole, more than half (65%) of the children received low level of stimulation at their home followed by moderate level (34%) of home stimulation. Alarming picture disclosed by findings that negligible per cent of underprivileged children received high level of stimulation at their home.

Table 1: Levels of home environment

Home environment	*Hisar (n= 200) f (%)*	*Ambala (n= 200) f (%)*	*Total (n= 400) f (%)*
Poor	131 (65.50)	129 (64.50)	260 (65.00)
Moderate	66 (33.00)	70 (35.00)	136 (34.00)
High	3 (1.50)	1 (0.50)	4 (1.10)

Figures in parentheses indicate percentage

Area wise comparison of home environment indicated that the percentage of children from Hisar district who received poor (65.50%) and high (1.50%) level of home environment was slightly higher as compared to children of Ambala district, while the percentage of children from Ambala district who received moderate level (35%) of home environment than their counterparts was much higher. Hence, it is concluded that due to poverty and ignorance, majority of the rural mothers of Hisar and Ambala districts provided poor stimulation to their children at home. Similar findings were reported by Manocha and Balda (2011) who agreed that the mothers exposed low level of stimulation for language development, physical environment, variety in stimulation and maternal attitude and discipline to their children. Most of the rural families provided low quality of home stimulation to their children, and the male children were given better home environment than the female children (Saini 2011).

Mental Age of Underprivileged Children

Based on general cognitive index of McCarthy Scales of Children's Abilities Scale, the mental age of each child was calculated by the formula given below:

Mental age = General cognitive index/ Chronological age x 100

The area wise levels of children's mental age against their chronological age have been presented in Table 2. The maximum number of children from Hisar (94%) and Ambala (85.50%) district had mental age below their chronological age. Few children from Hisar district had mental age equal (4.50%) and above (1.50%) their chronological age.

Table 2: Levels of mental age of children against chronological age

Mental age	*Hisar n= 200*	*Ambala n= 200*	*Total n= 400*
Above chronological age	3 (1.5)	2 (1.0)	5 (1.25)
Equal to chronological age	9 (4.5)	27 (13.5)	36 (9.0)
Below chronological age	188 (94.0)	171 (85.5)	359 (89.75)

Figures in parentheses indicate percentage.

Similarly, from Ambala district, 13.50 per cent of the children had equal to and only 1 per cent had mental age above their chronological age. Hisar district had more number of children (94%) who had mental age below their chronological age, whereas, Ambala district had more percentage of children (13.50%) who had mental age equal to their chronological age than their counterparts. On a whole, it can be interpreted that the children who belonged to disadvantaged society had less opportunity to grow their full potential. Therefore, they had mental age below their chronological age. Locality had slight effect on mental age of the children. Kavita (2008) also reported that majority of respondents who had low score on intelligence belonged to lower income group.

Comparison of Children's Psychological Abilities against Area

The data pertaining to comparison of different psychological abilities of Hisar and Ambala districts children have been given in Table 3. It appears that the children of Hisar and Ambala districts differed significantly in verbal ability (z= 1.99) at 0.05 level of significant. The mean score disclosed that the children of Ambala district (M= 29.23) had better verbal ability as compared to

the children of Hisar district (M= 27.81). There were non-significant differences in perception, quantitative, memory, motor and general cognition of the children from Hisar and Ambala districts.

Table 3: Comparison of psychological abilities against area (n= 400)

Psychological abilities	*Hisar Mean±SD*	*Ambala Mean±SD*	*Z-test*
Verbal	27.81±6.58	29.23±7.67	1.99*
Perception	29.54±7.51	29.89±9.61	0.41
Quantitative	32.0 ±8.06	31.76±8.41	0.28
Memory	26.57±4.99	27.51±6.43	1.62
Motor	32.31±9.03	33.17±11.41	0.84
General cognition	61.70±11.95	63.57±13.07	1.49

*Means differ significantly within row at 5% level of significance.

Further, the mean scores demonstrate that the children of Ambala district gained slightly more mean scores in all psychological abilities, that is, verbal (M= 29.23), perception (M= 29.89), quantitative (M= 31.76), memory (M= 27.51), motor (M= 33.17) and general cognition (M= 63.57), as compared to the children of Hisar district (M= 27.81 for verbal ability, M= 29.54 for perceptual ability, M= 32 for quantitative, M= 26.57 for memory, M= 32.31 for motor and M= 61.70 for general cognition).

Concluding the result, it can be interpreted that locality wise, the children of Ambala district performed slightly better than the children of Hisar district. Singh and Dhanda (2010) indicated that the children of urban areas surpassed the children from slums and rural areas and boys from three locations exceeded the girls in mental abilities.

Correlation between Children's Home Environment and Psychological Abilities

The correlation of different aspects of home environment with psychological abilities of the children in Table 4 depicts that the language stimulation provided at home was positively and significantly correlated with verbal (r= 0.40), perception (r= 0.41), quantitative (r= 0.44), memory (r= 0.38), motor (r= 0.31) and general cognition (r= 0.49). Similarly, the physical environment of home was significantly correlated with verbal (r= 0.36), perception (r= 0.38), quantitative (r= 0.32), memory (r= 0.30), motor (r= 0.30) and general cognition (r= 0.41). Same pattern was observed in variety of stimulation, maternal attitude and discipline and composite home environment. There were positive and significant correlation of variety of stimulation provided by the family at home with verbal (r= 0.33), perception (r= 0.36), quantitative (r= 0.30), memory (r= 0.33), motor (r= 0.26) and general cognition (r= 0.36). These psychological abilities were also positively and significantly correlated with maternal attitude and discipline (r= 0.36, 0.38, 0.25, 0.26, 0.33 and 0.41, respectively) and composite home environment (r= 0.53, 0.56, 0.48, 0.46, 0.43 and 0.59, respectively).

Result concluding that language stimulation, physical environment, variety of stimulation, maternal attitude and discipline and composite home environment strongly influenced the different psychological abilities of children. Poor home stimulation provided by parents degraded verbal, perception, numeracy, memory, motor and general cognition of the disadvantaged children. Duncan et al. (1997) concluded that the children raised in low-income families scored lower on assessments of health, cognitive development, school achievement and emotional wellbeing than the children from more affluent families. The studies used various cognitive tests reveal 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).

Table 4: Correlation between home environment and psychological abilities (n=400)

Home environment	*Psychological abilities*					
	Verbal	*Perception*	*Quantitative*	*Memory*	*Motor*	*General cognition*
Language stimulation	0.40*	0.41*	0.44*	0.38*	0.31*	0.49*
Physical environment	0.36*	0.38*	0.32*	0.30*	0.30*	0.41*
Encouragement of social maturity	0.09	0.11	0.08	0.07	0.07	0.06
Variety of stimulation	0.33*	0.36*	0.30*	0.33*	0.26*	0.36*
Maternal attitude and discipline	0.36*	0.38*	0.25*	0.26*	0.33*	0.41*
Composite home environment	0.53*	0.57*	0.49*	0.47*	0.46*	0.60*

*Significant at the 5% level of significance

CONCLUSION

The results of this study indicated that childhood is critical period in a young person's life, and their experiences in these formative phases can have a lasting impact on their life prospects. It can be concluded that despite many progressive policies and programmes executed by the government, the translation of these policies into reality at grassroot level has not been carried out. Majority of the disadvantaged families provided poor home environment to their children. Not surprisingly, being raised in poverty has been linked with unfavorable verbal, perception, quantitative, memory, motor, cognitive and behavior outcomes. Society and government should think about upgrading the conditions of these families and ensuring optimal conditions for a child's development. Investing on children increases a nation's capacity to compete and grow in a global economy.

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