



The Role of Home Environment in the Cognitive Development of Mentally Challenged Children

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Abstract

The mentally challenged child is sensitive of its surroundings and is able to sense the attitude of his/her family members. Keeping this in mind the focus of the present study is to identify mentally challenged children and to investigate the role of home environment in their cognitive growth. To achieve this purpose 100 mild/moderate mentally challenged (MMC) children and 100 normal intelligent children were selected as the sample. The age group of children was from 9 to 11 years. For identifying mentally challenged children the Raven's Coloured Progressive Matrices, teacher's rating and school records were used. To assess the home environment of children the Home Environment Inventory by Mishra (1989) was used. Statistical analysis revealed a significant difference between experimental and control group on 7 out of 10 dimensions of home environment. The study clearly indicates that a spontaneous cognitive development of children with mental retardation not only requires a supportive, favorable and warm home environment but also controlled and disciplined upbringing.

Keywords: Home environment, mentally challenged children, mental retardation.

Introduction

Mental retardation is defined as the lack of achievement of an appropriate degree of mental development in relation to age. It is determined by low level of intellectual abilities, which is manifested by inadequate development of thinking, limited learning ability and poor social adaptation to common living conditions. According to National Institute for Mentally Handicapped, the prevalence of mentally challenged in India is estimated at 2% of population. As per survey on the disabled in 2002, it was found that the prevalence rate of mentally retarded were about 94 persons per 100000. The prevalence rate was higher for males in both rural and urban sectors, as compared to females. The prevalence rate among males is 113 to 118 and among females is 69 to 81.

In all the countries, mental retardation is least regarded among social problems. Though mental retardation is not primarily a medical problem rather it is an educational, psychological and social problem. There is considerable ignorance amongst the general public about the concept of mental retardation. The great problem is due to narrow thinking of family members, community and society that mental retarded children are incapable of contributing anything to the society in return for the care and attention provided to them.

The mentally challenged child is sensitive of its surrounding and is able to sense the attitude of family members. If their parents and other family members consider them as a burden and accept them with a sense of guilt, the other individuals such as friends and relatives will also react in the same way. Family member's positive attitude and healthy family environment helps the mentally retarded children to express their self, built up confidence and personality. Family environment is not merely responsible for framing the raw structure personality of children into a better modified person, but also provides him with a ready made system of behaviour, values and mental development. Intelligence summarizes the child ability to processor information efficiently, recall knowledge quickly and solve problem accurately.

The impact of home environment or stimulus deprivation on mental development has been widely documented. Data from different studies show that home environment and type of stimulus to which a youngster is exposed during the early years of life are directly related to the intellectual and mental development of the child. Marfatia (1963) found that living standard neglect and inadequate care of the

children are main contributory causes of mental retardation. Skeels (1966) pointed out that maximum positive environment influences can raise the I.Q. of a child by 20 points and the extreme negative environment can lower I.Q. by 20 points. Therefore it may be argued that environment make a possible 40 points difference.

Manciaux and Deschamps (1975) confirmed that the environment influences the development of the child. It plays an important role in cases of mild & moderate retardation. Janson (1980) presented a model for examining the role of heredity and environment. He concluded that genes and parental development account 80% of the variance, leaving 20% to the environment. Bronfenbraenner (1977) state that dull and impoverished environment of home effects the cognitive development of the child. Waislbren (1980) noted that parents of retarded children had unrealistically high expectations from their children, probably as a consequence of late acceptance of the problem. Ishtiag and Kamal (1981) noted that broken brutal discipline, an unhealthy relationship with parents, broken homes and low socio-economic status may contribute to mental retardation. Copland and Decartes (1985) noted that parents have a very powerful influence on their children's apparent mental retardation. Sen and Pande (1998) stated that dull and impoverished environment of home and school adversely affects the cognitive development of the child.

Sagwan (2001) investigated that the ecological factors are significantly related to children's mental development. Pandey (2006) concluded that home environment is correlated with the intellectual development of child. Wachs & Sheehan (2013) found the effect of early home environment on the mental development of Down's syndrome infants. Ellis (2013) also revealed that there was a genetic relationship between home environment and infant mental development. Cohen etal (2012) studied that mean IQ's jumped 28 points when the home environment is changed by providing the mother with educational toys and coaching.

In Uttarakhand (UK) the problem of mentally challenged is very serious. The surprising fact is that Uttarakhand is holding third position in India in number of mentally challenged people. There are about twenty five thousand mentally challenged people in this state. A survey was done by psychologists in Uttar Pradesh (UP) and Uttarakhand. They found that birth rate of mentally retarded children is 12 in per 100

children in a year. In this way every 8th child is mental retarded in UK and UP. Knowing these shocking facts this study is an effort to explore the home environment of mentally challenged children of Uttarakhand, so that special efforts can be done for improving healthy and positive environment. As family is the first and basic institute for a developing child, the home environment provides greater mental and intellectual development possibilities for the mentally challenged children.

Objectives of the study

1. To identify the mild/moderate mentally challenged children from different school of Pauri District, Uttarakhand.
2. To compare the mentally challenged children with normal intelligence children on different dimensions of Home Environment i.e. Control, Protectiveness, Punishment, Conformity, Social Isolation, Reward, Permissiveness, Deprivation to privileges, Nurturance and Rejection.

Method

Sample:

The sample consists of 100 Mild/Moderate mentally challenged children and 100 average/above average intelligent children. The age group was 9-11 years.

Tools:

1. Raven's Colored Progressive Matrices (RCPM) – this test has been developed by Raven and Raven (1938) to measure the intellectual capacity of young children.
2. Home Environment Inventory (HEI) - This test has been developed by K.S. Mishra (1989). It measures the Psycho-social climate of home as perceived by children. It contains 10 dimension of home environment.
3. Teacher's rating about children.
4. School records of children.

Procedure:

The study was conducted in three sessions. In first session the researcher approached the class teachers for selecting Mild/moderate mentally challenged and normal intelligent children from their classes. For this purpose teacher's rating was used. After that the school records of these students were also checked.

In the second session the researcher established rapport with the children and administered Raven's Colored Progressive Matrices on these students. In this way 100 mentally challenged and 100 average and above average intelligent children were selected.

In the last session Home Environment Inventory was administered on selected experimental and normal control groups.

Result and Discussion

Table 1: Scores of Mentally Challenged Children and Normal children on Control Dimension

Children	Number	Mean	SD	t Ratio	P
MC	100	20.84	8.29	3.05	P<0.01
Normal	100	23.1	5.30		

The present table shows significant mean difference between mentally challenged (20.84) and mentally normal (23.1) children in relation to Control Dimension of Home Environment Inventory. The calculated t-value 3.05 is significant at 0.01 level of confidence. These scores clarifies that the Home Environment of Mentally Challenged children is less controlled and disciplined then normal children.

Table 2: Scores of Mentally Challenged and Normal children on Protectiveness Dimension

Children	Number	Mean	SD	t Ratio	P
MC	100	24.88	6.54	4.69	P<0.01
Normal	100	29.2	6.41		

The means difference of table 2 depicts significant between Mild/Moderate mentally challenged (24.88) and normal children (29.20) in relation to Protectiveness Dimension of HEI the obtain t-value 4.69 is significant

at 0.01 level. Thus the parents/family members of mentally challenged children are less protective and concerned than another group.

Table 3: Scores of Mentally Challenged and Normal children on Punishment Dimension

Children	Number	Mean	SD	t ratio	P
MC	100	24.54	8.84	2.59	P<0.05
Normal	100	26.92	6.05		

It is justified from table 3 that there is significant mean difference between mentally challenged (24.54) and Normal (26.92) children in relation to Punishment Dimension of HEI. The computed t-value (2.59) is significant at 0.05 level. This proves that the parents/family members of mentally challenged children cannot use punishment to avoid the occurrence of undesirable behaviour.

Table 4: Scores of Mentally Challenged and Normal children on Conformity Dimension

Children	Number	Mean	SD	t Ratio	P
MC	100	26.65	7.06	2.35	P<0.05
Normal	100	28.83	5.95		

Table 4 again revealed significant difference between both of the group in relation to Conformity Dimension of HEI. The obtain t-value 2.35 predicts significant difference at 0.05 level of confidence. Thus the parents / family member of first group desire less from their children. So they give fewer directions to their children than the parents/family member of second group.

Table 5: Scores of Mentally Challenged and Normal children on Social Isolation Dimension

Children	Number	Mean	SD	t Ratio	P
MC	100	15.33	7.73	0.45	NS
Normal	100	14.86	6.97		

It is evident from table 5 that there is no significant difference between MC (15.33) and normal (14.86) children in relation to Social Isolation Dimension of HEI. The obtained t-value (0.45) is negligible and not significant at any level of confidence. This reflects that both of the above mentioned groups, feel isolation from their family in same manners and degree.

Table 6: Scores of Mentally Challenged and Normal children on Reward Dimension

Children	Number	Mean	SD	t Ratio	P
MC	100	26.16	7.99	2.36	P<0.05
Normal	100	28.62	6.62		

Viewing of table 6 it is clear that there is significant difference between Mild/Moderate mentally challenged (26.16) and normal (28.62) children in Reward Dimension of HEI. The t-value is 2.36 and significant at 0.05 level. The result indicates that mentally challenged children got less material and symbolic reward from their parents and family members than the children of second group.

Table 7: Scores of Mentally Challenged and Normal children on Deprivation to privileges Dimension

Children	Number	Mean	SD	t Ratio	P
MC	100	14.86	7.00	1.39	NS
Normal	100	13.46	7.24		

Table 7 exhibits no significant difference between both of the above mentioned groups in relation to Deprivation to Privileges Dimension of HEI. The computed t-value is 1.39, which is very low for significant at any level of confidence. It includes that the home environment of both first and second groups does not deprived their children from their rights and love.

Table 8: Scores of Mentally Challenged and Normal Children on Nurturance Dimension

Children	Number	Mean	SD	t Ratio	P
MC	100	22.09	6.92	2.96	P<0.01
Normal	100	24.73	5.55		

The table 8 disclosed that there is no-significant difference between Mild/Moderate mentally challenged (22.09) and normal (24.73) Children in Nurturance Dimension of HEI. The obtain t-value (2.96) is significant at 0.01 level. It makes clear that the parents/family members of mentally challenged children are very less physically, mentally and emotionally concerned with their child then their counter group.

Table 9: Scores of Mentally Challenged and Normal Children on Rejection – Dimension

Children	Number	Mean	SD	t Ratio	P
MC	100	14.54	7.75	2.89	P<0.01
Normal	100	11.25	8.2		

The table 9 again projects significant difference between Mild/Moderate mentally challenged (14.45) and normal (11.25) children in relation to Rejection Dimension of HEI. The obtain t-value 2.89 is very high and significant at 0.01 level of confidence. It reflects that the parents and family member of mentally challenged children reacts more negatively towards their children then parent/family of normal children.

Table 10: Score of Mentally Challenged and Normal Children on Permissiveness Dimension

Children	Number	Mean	SD	t Ratio	P
MC	100	17.52	7.49	1.29	NS
Normal	100	16.24	6.35		

The present table 10 pictured no significant difference between Mild/Moderate mentally challenged (17.52) and normal (16.24) children in relation to Permissiveness Dimension of HEI. The above mentioned t-value is 1.29 and not significant at any level of confidence. It represents that Home Environment of the first & second

groups are name in permissiveness. The parent/family members of both groups do not interfere with their children, to act according to their desires.

The present study has been undertaken to identify the mild/moderate mentally challenged (MMC) children from different schools of Pauri District, Uttarakhand and to measure there Home Environment on different dimensions. These dimensions are –control, Protectiveness, Punishment conformity, Social Isolation, Reward, Deprivation of Privileges, Nurturance Rejection and Permissiveness.

The major findings are as follows:

1. The Home Environment of Moderate mentally challenged Children is less controlled than normal Children. Controlled home environment has a powerful influence on the cognitive development of children. This finding is supported by Pandey (2006), controlled home environment enforces some rules and regulations to the child for proper intellectual growth
2. The Home Environment of normal children is more Protective then mentally challenged children. This protective and caring home environment is significantly related to the mental development of the children. The findings of Vellilla et.al (1976), Desousa & Desousa (1978) and Pandey (2006) supported the present finding.
3. The parents of mentally challenged children give less ‘Punishment’ to their children to avoid occurrence of undesirable behaviour than comparison of intellectually normal children. Thus some moderate punishment and administrative restriction are natural for mental growth of the children Pandey (2006). As Walters et al. (1965) suggested on the basis of their study that in home setup, punishment is effective in helping to accomplish particular objective. Hymes (1963) also state that reprimand which is ‘easy to give take is generally recommended.
4. On Conformity dimension the parents of mentally challenged children do not demand and expect from their children as parents of normal children Pandey (2006). It means much passiveness, care freeness and inertia of parents is major factor that determines mental development of children Kagon

& Moss (1959), Amesur (1962) and Frankenstein (1965) also state that mental retardations is associated with poor parental guidance.

5. The both groups of mentally challenged and normal children does not feel Social Isolation in their home. It indicates that the parents and family members of mentally challenged children does not use isolation for negative sanctions.
6. The mentally challenged children gains less material as well as symbolic Rewards from their parents then the counter group. Thus praise and rewards are necessary for increasing the probability of mental development Ishtiaq and Chandra (1975) found that lack of motivation is related to intellectual handicap. Waisbern (1980) and Pandey (2006) also noted that the parents of mentally challenged children fail to reinforce the progress of their children.
7. The parents and family members of both first and second group do not deprived their children from privileges. So mentally challenged children got proper love and respect from their home environment. Their parents do not control them at the cost of their rights. The same result is supported by pandey (2006).
8. In 'Nurturance' dimension of Home Environment mentally challenged children achieved significantly lower scores than normal children. It reflects that the parents of mentally challenged children have not a keen interest and care towards their children Pandey (2006). Nihira et al. (1981), (1983) found that cohesiveness and emotional support of family members is related to learning progress of mentally challenged children. Ishtiaq and kamal (1981) in his analysis found that malnutrition and infectious disease affect the development of mental process.
9. The mentally challenged group is found much inferior in Rejection dimension of Home Environment then normal group. It projects that parents/family members of mentally challenged children react more negatively towards their children which blocks the cognitive development of these children. Hurley (1969) investigated that less intelligent children elicit more rejecting behaviour from their parents than intelligent children. He also reveals that parental rejection produces lower intelligence in

children. The same result was found by Verma & Shah (1971), Anisworth & Bell (1974), Ishtiaq & Kamal (1981), Olsen et al. (1984), Copland & Decarates (1985) and Pandey (2006).

10. On Permissiveness dimension the Home Environment of both groups is same. It justified that parents of both experimental and control group provide same opportunities to their children to express their views freely and act according to their desires with out their interferences. (Pandey 2006).

Viewing on the present findings, it is clearly proved that the home environment is responsible for the cognitive development of children. The home environment of mentally challenged children is significantly differing with normal children in seven dimensions out of ten dimensions of Home Environment Inventory. These dimensions are – Control, Protectiveness, Punishment, Conformity, Reward, Nurturance and Rejection. The impact of the quality of home environment on the child's cognitive development has been well documented in many studies. Kalhorn and Breese (1945), Connor et al.(1954), Kagan and Moss (1962), Takrani (1969), Tymchuk (1972), Broadhead (1973), Dumas – Menguy and Baillon (1975), Isthaiq and Chandra (1975), Manciaux and Deschamps (1975), Vellia et al.(1976) Bronfenbraenner (1977), Gastager (1978), Peniston and Mc. Lean (1979), Waisbren (1980), Ishtag and Kamal (1981), Yeates et al. (1983) Copland and Decartes (1985), Sen and Pandey (1998), Sagwan (2001), Pandey (2006), Cohen etal (2012),Wachs & Sheehan (2013) and Ellis (2013).

Thus the present study makes a significant contribution toward improving the home environment of mentally challenged children. By enriching the family atmosphere we provide greater mental development plasticity.

Remedy Guidelines for Improving the Home Environment of mentally Challenged children:

1. Disciplined and Controlled home environment is essential for proper cognitive development of child. But it is inevitable that the control and discipline should be kind and mild not lax, strict or erratic.
2. Protective and caring family environment plays a positive role for mental development of child. So it is necessary that parents/family members prevent child's independent behaviour and give him true care and worth affection for best mental growth.

3. Parents' over freedom on undesirable behavior negatively effect the mental growth of child as well as the brutal and over strict punishment. So some administrative restrictions for improving intellectual capacity of these children.
4. Parental positive directions and commands have crucial role in the intellectual development of mentally challenged children. Therefore to check and guide time to time your mentally challenged children, it provide more opportunities for cognitive development.
5. Praise and rewards impoverish the cognitive growth to children. So to motivate and encourage these children by praise and rewards at any tiny bit of their success.
6. Proper by nurturance and psychological – emotional support of parents and family members is directly related to the intellectual maturity of children. So parents should always take interest in these children and give them unconditional love and attachment.
7. Acceptance and approval of parents can improve the mental efficiency of these children while negligence and rejection, affect the mental efficiency. Therefore the home atmosphere should be cordial, loving and supportive.
8. Permissiveness or opportunities for child to expressing his views freely and act according to his desire may faster the development of normal children. But in the case of mentally challenged children it increases problems in proper cognitive development. So parental guidelines and some interference is necessary for these children to stretching cognitive development.

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