

## **Associated Familial Psychosocial Factors in Attention Deficit Hyperactivity Disorder**

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**ABSTRACT:** Attention Deficit Hyperactivity Disorder (ADHD) is a developmental disorder that is commonly diagnosed across pediatric practices in India. An integral aspect related to the understanding of this disorder is the analysis of the behavior profile of children diagnosed. The present study focused on analyzing the associated aspects in the child's environment, especially familial psychosocial factors. This aims to provide healthcare professionals with additional insight and also impact the employment of effective management strategies. Results of the current study portray the impact of family structure, issues in child rearing and parental quality of life domains in families where children have ADHD. Addressing these issues in the management program for ADHD is integral to obtain positive results.

**Keywords:** ADHD, parenting, psychosocial factors

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### **I. INTRODUCTION**

The essential feature of Attention Deficit Hyperactivity Disorder is a persistent pattern of inattention and/or hyperactivity- impulsivity that is more frequent and severe than is typically observed in individuals at a comparable level of development. Children with this disorder will commonly fail to give close attention to details and make careless mistakes, will have difficulty sustaining attention in tasks or play activities, will not follow through on instructions and fail to finish schoolwork or chores, will lose things necessary for tasks or activities, will often fidget with hands or feet and squirm in seat, will often run about excessively in situations in which it is inappropriate, are talkative and are often 'on the go' and acts as if 'driven by a motor'. [1] In India, the prevalence of Attention Deficit Hyperactivity Disorder is estimated at 10% to 20% in school age children. [2] Data on the prevalence in adolescence and adulthood are limited. Attention Deficit Hyperactivity Disorder is frequently accompanied by learning disorders and other behavior disorders. [3]

Parents play a crucial role in facilitating and maintaining developmental gains in disabled children. The diagnosis of disability in a child is a traumatic event. Parental reactions to their child's disability are highly individualistic. The type and intensity of their response depends on how parents handle crisis situations in general, stability of the marital relationships and parental aspirations. Some of the common reactions include guilt, disappointment, shame, grief, anger and disbelief. A family's reaction to a child's handicap begins at the point of diagnosis or confirmation of disability. The family's acceptance of the disabled child is in part dependent on the parent's response. If they are reasonably optimistic and willing to integrate the child, the family will reflect her reaction. On the other hand, if they are despondent and disappointed, the family is more likely to respond negatively to the child. The time and attention needed to deal with a child with ADHD can change internal family relationships and have devastating effects on parents and siblings. [4]

Also, a child's growth and development depends heavily on the different aspects of his/her environment. Parents have an irreplaceable influence on their child's growing years. Rehabilitation programs for children with disabilities focus primarily on the management of the child's difficulty. There is little or no emphasis on the parent, who constitutes an important part of the child's environment. This study explores factors relating to parental quality of life, stress and self-esteem, thus aiming to provide clinical and other health care professionals guidelines as to manage the whole family unit, while treating Attention Deficit Hyperactivity Disorder, ultimately focusing on the provision of a healthy environment for the child. In the Indian setting, the management for Attention Deficit Hyperactivity Disorder has always focused on pharmacological management and partly involving behaviour therapy. Focus on parents, the primary caregivers has been minimal. This paper explores the associated social conditions in families where children have Attention Deficit Hyperactivity Disorder. This study also attempts to bring to light the various facets affected with regard to parents' emotional health, thus paving the way for a wholesome management program for Attention Deficit Hyperactivity Disorder.

## II. METHODOLOGY

The design of this study was predisposed to be descriptive in nature. Detailed case history taking and survey method were the primary modes of data collection. The sample selected for the present study included parents of children with Attention Deficit Hyperactivity Disorder residing in Tamil Nadu (India), using purposive sampling technique. Diagnosis of children was carried out by a professional team of a clinical neuropsychologist, pediatrician and psychiatrist. The DSM-IV (TR) criteria were used for diagnosis. 404 parents (202 fathers and 202 mothers) formed the sample studied. A detailed interview was carried out. Parents were also required to complete the WHO Quality of Life-BREF Questionnaire.

## III. RESULTS AND DISCUSSION

### *Parental Education and Occupation*

Of the fathers involved in this study, 6.4% completed schooling, 41.6% were graduates, 18.3% were post-graduates and 18.8% were professionals. Of the mothers involved in this study, 19.3% completed schooling, 58.9% were graduates, 16.8% were post-graduates, 4% were professionals. Of the fathers studied, 30.7% were businessmen, 10.9% were engineers, 36.6% were in service and 6.9% were involved in other occupations. Of the mothers, 59.9% were home-makers, 20.8% were in service, 9.9% were teachers, 5.9% were into business and 2.5% were involved in other occupations. There was no significant factor noted with regard to parental education and occupation in this study. Although Kennedy (2000), of the Division of Human Development and Disability, National Center on Birth Defects and Developmental Disabilities [5], said that Attention Deficit Hyperactivity Disorder diagnosis was significantly more often in families with incomes below the poverty threshold than in families with incomes at or above the poverty threshold, Attention Deficit Hyperactivity Disorder was diagnosed across all strata of society in this study.

### *Handedness*

**Table 1:** Forced change in handedness in children with Attention Deficit Hyperactivity Disorder

	Forced Change	
	N	%
Yes	103	51.0
No	99	49.0
Total	202	100.0

75.7% of children in this study were reported to be right-handed, 5% left-handed and 19.3% ambidextrous. It was interesting to note that a history of forced change in handedness was noted in 51% of right handed children. Rodriguez et al (2008) [6] suggested that mixed handedness is related to and common in Attention Deficit Hyperactivity Disorder. It is noted in this study that a history of forced change in handedness (forcing a child to adapt to right handedness, when he is a natural left-hander) is reported in more than half (51%) of children with Attention Deficit Hyperactivity Disorder. This observation may be attributed to a cultural expectation wherein, in the Indian setting use of the left hand is considered inauspicious in activities of daily living. This factor contributes to the difficulties children with Attention Deficit Hyperactivity Disorder face in relation to academic situations. It was observed in this study that around 63.9% of children with Attention Deficit Hyperactivity Disorder had difficulty with academics. This correlated to reports by Matte and Bolaski (1995) [7], where students with Attention Deficit Hyperactivity Disorder were observed to have more difficulty with multiple academic tasks.

### *Sibling Rivalry*

Sibling rivalry was reported among 11.9% of children studied. Sibling rivalry during early and late childhood is considered normal in the process of development. It is noteworthy that the maximum children (69.8%) in this study were single children.

### *Type of Family*

**Table 2:** Type of family and symptom intensity in children with Attention Deficit Hyperactivity Disorder

DSM -Symptom Checklist Scores		Mean	SD	N
Type of Family	Joint	63.71	23.85	58
	Nuclear	67.67	23.50	109
	Single parent	49.93	19.82	35

54% of the children in this study hailed from a nuclear family, 28.7% from a joint family setting and 17.3% of children were raised by a single parent. Statistical analysis indicates a significant difference in the intensity of symptoms with regard to family structure. It is noted that children from nuclear families were reported to have more symptoms, while single parents reported significantly fewer symptoms. The post hoc tests also shows a significant difference in the DSM-IV mean scores as reported by single parents when compared to

those reported by parents in a joint or nuclear family setting. The intensity of symptoms reported by parents whose children had Attention Deficit Hyperactivity Disorder was higher in a nuclear family setting than when children hailed from joint families or had single working parents. This may be attributed to shared responsibilities with others in the family or child caregivers. This may not be the case in the nuclear family setting, where parents are the primary caregivers for their children in addition to responsibilities of the home. This may be a factor in the report of a greater number of symptoms when children with Attention Deficit Hyperactivity Disorder hail from a nuclear family.

**Working Mothers**

Results indicate that the factor of mothers working does not affect the intensity of symptoms or maladaptive behaviours in children with Attention Deficit Hyperactivity Disorder.

**Parental Disharmony**

It was seen in this study that 49.3% of children had a history of parental disharmony. Further statistics indicate that the intensity of symptoms is higher in children with Attention Deficit Hyperactivity Disorder when parental disharmony exists.

**Parental Domains- Quality of Life, Parenting Stress and Parental Self-Esteem**

Results indicate that a significant association exists among the various paternal domains investigated. It is interesting to note that paternal quality of life has a negative association with Depression and Stress. Also, a positive correlation is noted between positive themes of parenting and self-esteem. No significant correlation is seen between paternal quality of life and self-esteem. With regard to the aspects of maternal quality of life, it was seen that a negative association exists between physical aspects, psychological aspects, environmental aspects, social relationships and parental stress. There is a positive relationship between self-esteem and positive themes of parenting. An association between physical aspects of a parent and stress is not seen in fathers as observed in mothers. Also negative themes in parenting of fathers are not related to environmental aspects as reported in mothers.

**Table 3:** Relationship between domains of fathers and mothers of children with Attention Deficit Hyperactivity Disorder

Paired Samples Correlations		N	Correlation	Sig.
Pair 1	Father - Overall QOL & Mother – Overall QOL	143	.482	.000
Pair 2	Father - Health & Mother - Health	143	.082	.333
Pair 3	Father - Physical Aspects & Mother - Physical Aspects	143	.279	.001
Pair 4	Father - Psychological Aspects & Mother - Psychological Aspects	143	.270	.001
Pair 5	Father - Social Relationships & Mother - Social Relationships	142	.288	.001
Pair 6	Father - Environmental Aspects & Mother - Environmental Aspects	143	.234	.005
Pair 7	Father - Depression & Mother - Depression	143	.006	.939
Pair 8	Father - Total QOL & Mother - Total QOL	143	.296	.000
Pair 9	Father - Whole Scale PSS & Mother - Whole Scale PSS	143	.586	.000
Pair 10	Father - Positive Themes & Mother - Positive Themes	143	.338	.000
Pair 11	Father - Negative Themes & Mother - Negative Themes	143	.534	.000
Pair 12	Father - Self Esteem & Mother - Self Esteem	143	.242	.004

From table 3, it is seen that there is a significant positive relationship between father’s and mother’s overall quality of life, psychological aspects, social relationships, environmental aspects, depression, parental stress, positive and negative themes of parenting and self-esteem. There is however no relationship between father’s and mother’s experience of depression. Therefore the experience of paternal and maternal stress, self-esteem and most aspects of quality of life depend on each other, but the experience of depression is an independent feature. Results also indicate that a significant difference exists between fathers and mothers with regard to physical aspects, social relationships, environmental aspects, depression, total quality of life, whole scale parental stress, acceptance of the developmental disorder (negative themes of parenting). Mothers seem to obtain lower scores on domains measuring quality of life aspects and higher scores relating to parental stress when compared to fathers.

It was interesting to note that the social factors, especially parental domains are related to each other. Fathers’ and mothers’ well-being, stress and self-esteem are related to each other. It was noted that as levels of depression and stress increased, parental quality of life reduces. Mothers seem to be affected on more facets than fathers. Deficits were noted with regard to physical aspects involving aspects of enjoying life, a feeling that life is meaningful and extent of physical pain experienced, psychological aspects involving concentration and a feeling of security, environmental aspects involving activities of daily living, effect on social relationships, level

of energy, finances, leisure activities and need for information. Also, stress reported in mothers is related to their physical aspects. Since a relationship exists between fathers and mothers quality of life, experience of stress and self-esteem, a change in the level of one parent may attribute an equal or similar change in the other parent. This feature is true for all aspects except depression, which seems more individualistic. This finding also increases the importance on the need for parental counseling in the management of Attention Deficit Hyperactivity Disorder.

#### ***Parental domains and Social aspects***

It was interesting to note that many social factors especially relating to parental domains varied across different aspects. With regard to Quality of Life, parents whose children have Attention Deficit Hyperactivity Disorder- Inattentive type seem to have fairly better levels of quality of life when compared to parents whose children have Attention Deficit Hyperactivity Disorder- combined or inattentive types. The component of 'hyperactivity' seems to play a major role in parental quality of life. 'Hyperactivity' seems to retard parents' socialization and affects physical aspects, especially level of parental energy in care-giving.

The age of the child was not a factor in the quality of life of parents. It was observed that physical aspects of parents were more affected when they have single children with Attention Deficit Hyperactivity Disorder. In addition, mothers with single children seem more depressed than their counterparts. The complete focus of parents with single children may be only on their child, thus leading to lower quality of life scores. Parents whose sons had Attention Deficit Hyperactivity Disorder reported lower scores on Quality of Life aspects than parents whose daughters had Attention Deficit Hyperactivity Disorder. This may be attributed to the cultural bias that favours the well-being of the boy rather than that of the girl child. It was also observed that parents whose children were on a management program had fairly better quality of lives and lower scores on depression, than parents whose children were not on a management program. This portrays the effectiveness of the management program for Attention Deficit Hyperactivity Disorder, but focus on all parental aspects should be worked upon.

#### ***Parenting Stress and Themes of Parenting***

Acceptance of a child (themes of parenting) with Attention Deficit Hyperactivity Disorder was a major factor that parents had difficulty coping. This was seen for fathers and mothers especially when children had Attention Deficit Hyperactivity Disorder- combined type. This may be attributed to the lack of awareness and information with regard to this developmental disorder. The age of the child, ordinal position, whether or not the child is on a management program does not influence the stress experienced by parents. With regard to the gender of the child, it was interesting to note that mothers experienced greater stress when their sons had Attention Deficit Hyperactivity Disorder. They also had greater difficulty accepting their child's difficulties. This may be attributed to the cultural norm that mothers are the primary caregivers for children. Therefore, they experience greater stress.

### **IV. CONCLUSIONS**

Therefore, in the management program for Attention Deficit Hyperactivity Disorder, parental counselling should be give adequate focus. It should be noted that the type of Attention Deficit Hyperactivity Disorder, age, gender, birth order, whether or not the child is on a management program and co-morbid features influence the quality of life, stress and self-esteem experienced by parents in varied ways. Appropriate counseling procedures should be adopted and incorporated for the wholesome effectiveness of the management program and better outcomes for children with Attention Deficit Hyperactivity Disorder.

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