

# A Study on the Correlation Between Parenting Styles and Children at Risk of ADHD in Middle Childhood (Ages 8 To 13 Years in Urban Areas)

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**Abstract:** *In recent times, Attention Deficit Hyperactivity Disorder (ADHD) is one of the most prevalent neurodevelopmental disorders in children during middle childhood, frequently resulting in challenges related to behaviour, academics, and social interaction. The style of parenting is acknowledged as a significant element that may affect the intensity of ADHD symptoms and the overall adjustment of the child, especially in urban environments. This study involves identifying children aged 8 to 13 who are at risk of ADHD, exploring various parenting approaches, and examining the relationship between three distinct parenting styles and the behaviour of middle childhood children exhibiting ADHD symptoms. The assessment instruments employed for evaluating the presence of ADHD symptoms is Vanderbilt ADHD Diagnostic Rating Scale (VADRS), which is a standardised screening and diagnostic support instrument used to assess Attention-Deficit/Hyperactivity Disorder (ADHD) in children, based on DSM criteria. The Parental Authority Questionnaire (PAQ) measures three parenting styles based on Baumrind's model. The parenting styles measured are Authoritative, Authoritarian and Permissive. The questionnaire has 30 items (10 per style) with Likert-scale responses. A cross-sectional correlational research design was employed with a sample of 200 middle school children and their parents recruited from urban areas. ADHD risk was assessed using standardised screening measures for inattention, hyperactivity, and impulsivity. Pearson's correlation and analyses were conducted to examine the relationship between parenting approaches and risk of ADHD symptoms.*

**Keywords:** ADHD, Parenting styles, Authoritarian parenting, Permissive parenting, authoritative parenting, middle childhood, urban areas

## 1. Introduction

- Attention Deficit Hyperactivity Disorder (ADHD) is a neurodevelopmental disorder, and presently 7.6% of children aged between 3 and 12 years and 5.6% of children aged between 12 and 18 years are showing features of ADHD globally.
- Children at risk of ADHD or already diagnosed might show the following features:
  - Attention deficit
  - Low attention span
  - Hyperactivity
  - Impulsivity
  - Poor organisational skills
  - Poor executive functioning skills
  - Poor decision-making
  - Restlessness

### Parenting Styles

A parenting style is a pattern of behaviors, attitudes, and approaches that a parent uses when interacting with and raising their child. The study of parenting styles is based on the idea that parents differ in their parenting patterns and that these patterns can significantly impact their children's development and well-being. Parenting styles are distinct from specific parenting.

### Authoritarian Parenting

Authoritarian parenting is characterized by strict rules and dos and don'ts, and parents prefer to monitor their children at all times. They tend to be dictatorial, prefer to control their child's behavior, and take it very seriously. It is a matter of status and pride for some of these parents. Children of such

parents may be timid, scared of making mistakes, and have low self-esteem and self-confidence.

### Permissive parenting

Permissive parents are more lenient and allow their children to take their own decisions and make their own choices. They do not believe in correcting their children every time they make a mistake. They allow them to make mistakes and learn. Children of permissive parents may be overconfident, impulsive, and willful and lack self-discipline. On the other hand, they could be more courageous, confident, and independent.

### Authoritative parenting

Authoritative parents try to strike a balance between giving freedom and accountability. They set reasonable ground rules and boundaries, which are explained to the child. They use positive reinforcement and rewards to ensure discipline instead of punitive measures. They believe in investing time and energy in their upbringing. They use positive strategies to correct the behavior of the children. Children of such parents are more responsible, honest, show integrity, and have high self-esteem.

### Significance of the Study

ADHD impacts middle school children in many ways. It affects the social-emotional well-being of the child. These children often find it difficult to navigate through various situations, may not know how to respond and find a solution. The attention deficit makes him/her restless and tends to cause disorientation and a feeling of being disconnected from the environment. It is difficult for them to focus on one activity for long. It is challenging for them to organise their things, and follow a routine. Children with signs of ADHD

are often misunderstood as arrogant, rude, lazy and naughty. Their poor organisational skills hinder their daily routine and academic progress. Medical intervention is used in severe cases to mitigate the condition. Behaviour counselling and therapies can be tried in case of milder cases. Parenting styles could also have an impact on the behaviour of children with ADHD and that is what is the objective of this study.

## 2. Review of Literature

Attention deficit hyperactivity disorder (ADHD) is among the most frequent disorders within child and adolescent psychiatry, with a prevalence of over 5%. Neurological systems, such as the Diagnostic and Statistical Manual of Mental Disorders, 5th edition (DSM-5) and the International Classification of Diseases, editions 10 and 11 (ICD-10/11), continue to define ADHD according to behavioural criteria, based on observation and informant reports.

There is a correlation between parenting and the behaviour of children with ADHD

- ADHD prevalence in urban Indian cities often ranges from approximately 7% to 10%.
- Boys tend to show higher rates than girls.
- Methodological differences (tools, informants, age groups) can influence prevalence estimates.
- In a community-based study in New Delhi, Singh and colleagues found that approximately 9.5% of children aged 6–12 years met criteria for ADHD, with boys showing higher rates than girls.
- Similarly, Gupta et al. (Year) reported a prevalence of 7.8% in school-going children in Mumbai, aligning with international figures but highlighting the significant public health burden in urban Indian settings. These findings are consistent with global meta-analyses, which estimate ADHD prevalence in school-aged children to range from 5% to 10% worldwide.
- Peer-Reviewed Journal Articles
- A study by Genisti, D. F., Andini, N. K. S., & Yanti, N. L. G. P. (2018). *Belitung Nursing Journal*, 4(2), 271–278. reports a significant correlation between parenting style and developmental outcomes in children with ADHD using parenting questionnaires.
- A study (Surabaya study) found significant relationships between parenting styles (authoritarian/permissive/authoritative) and ADHD risk using Conners and a parenting style questionnaire.
- Parenting styles and clinical variables among children with Attention Deficit Hyperactivity Disorder. *Mansoura Nursing Journal*, 6(2), 11–19. demonstrates statistically significant correlations between parenting styles and clinical ADHD variables. *Samar Dahab, Rania El-Etreby, Hanan Mohamed, Osama El-Boraie* (2019).
- A study which was published in the *International Journal of Medical Arts*, 2(1), 211–216, shows a significant relation between negative /authoritarian parenting style and ADHD symptom severity in children. *Elemam, M. E., Abdelmaksoud, A. A., & Abo-Elabbas, M. M.* (2020). *Effect of parenting style on severity of Attention-Deficit/Hyperactivity Disorder among children attending Al-Azhar University Hospital.*

There is a correlation between parenting and the behaviour of children with ADHD

Many studies have shown that teaching-parenting styles to parents with ADHD children improves the inner family relationship.

### Objective

It aimed to study the characteristics of child and mother-reported parenting styles of children with Attention Deficit Hyperactivity Disorder (ADHD) and the association of parenting styles of mothers with demographic and clinical variables like ADHD symptoms, sex, age, ADHD subtype, and comorbidity.

## 3. Results

The ADHD group had lower scores on two subscales of PSI (acceptance/involvement and strictness/supervision) as well as democratic attitude and equality subscale of PARI while it had higher scores on the strict discipline subscale of PARI when compared to the control group. In the ADHD group, higher symptoms of oppositional defiant disorder were associated with higher strict discipline scores of mothers and lower child reported acceptance/involvement scores of mothers.

Conclusion: These results indicated the importance of integrated approach to ADHD diagnosis and treatment and evaluating the child with ADHD in the context of family environment.

- Many studies have shown that teaching-parenting styles to parents with ADHD children improves the inner family relationship. The results indicated that parents of children with ADHD are less permissive but more authoritarian in their parenting. ADHD / parenting styles/parents
- Some findings supported the idea that there may be an association between parenting attitudes and ADHD symptoms in families having a child with ADHD
- This study was conducted in Zahedan in 2012. Subjects aged 7 to 12. They were divided into patient and normal groups. Parenting styles were evaluated with Baumrind's questionnaire. The data were analyzed with SPSS software ver.18.
- The findings showed that the parents of ADHD children have lower permissive score than the normal group, but authoritarian score was lower in the normal group. The authoritative score has no significant difference between the two groups.
- In addition, age, gender, and parent's education affected the parenting management training. Based on social learning models, is an effective and practical way for the treatment of children with incongruent behavior.
- Overall, the literature suggests that ADHD is not rare in urban Indian cities, with prevalence estimates predominantly clustering between 7% and 10% in school-aged populations. Furthermore, these studies highlight the importance of using multi-informant assessments and culturally validated measures to improve diagnostic accuracy. *Bhide, S., Sciberras, E., Anderson, V., Hazell, P., & Nicholson, J. M.* (2019). *Association between parenting style and socio-emotional and academic functioning in children with and without ADHD.*

- Journal of Attention Disorders, 23(5), 463–474.– Examines how warmth, consistency, and anger in parenting relate to functional outcomes (including attention) in children with ADHD.
- The authors of this article aim to review published research examining the interaction between parents and their children with ADHD. A PubMed search was conducted of studies written in English between 2000 and 2007 with the keywords *ADHD* and *parenting*. Child ADHD elicits high levels of parental stress and maladaptive parenting. The presence of parental psychopathology is common and influences the parent's response to the child's ADHD symptoms. Optimizing parent- child interaction and parental psychiatric status may improve outcomes for both parent and child.

**Objectives of the Study**

- To identify the parenting styles of parents of children showing signs of ADHD
- To identify the extent of the risk of ADHD in the sample population.
- To study the correlation between three parenting styles: authoritative, authoritarian and permissive parenting
- This study would help parents of such children change their children's behaviour.

**Hypothesis**

- H1- There are different parenting styles and they can be identified.
- H2- There is a correlation between parenting style and behaviour of children showing signs of ADHD.
- H3-Authoritative parenting has a negative correlation to the behaviour of children at risk of ADHD in middle childhood.
- H4- Permissive parenting has a positive correlation to the behaviour of children at risk of ADHD in middle childhood.

**4. Research Design**

**Sample population**

- 200 parents of children showing signs of ADHD
- 200 children at risk of ADHD aged 8 to 13 years

**Sample technique**

- The Sample for the present study is 200 middle school children showing signs of mild ADHD in Hyderabad city in the state of Telangana. Subjects in the age group of 8 to 13 years were selected, and data were collected using a random sampling method.
- Parents of children showing symptoms of mild ADHD will be given the Parent Authority Questionnaire to identify their parenting style and the level of correlation

**Variables:**

**Dependent variables**

- Children aged between 8 to 13 years at a risk of ADHD in urban area.

**Independent variables**

- Parenting styles of parents of children showing signs of mild ADHD

**Sample**

**Inclusion criteria**

- Children aged 8 to 13 years, corresponding to middle childhood and early adolescence.
- Children residing and attending school in urban areas (e.g., Hyderabad city).
- Children at risk of ADHD aged between 8 to 13 years
- Parents of children at a risk of mild to moderate ADHD, willing to participate in the survey.

**Exclusion criteria**

- Children not showing signs of ADHD
- Children with severe neurodevelopmental disorders like Autism, ID, Epilepsy etc
- Children under 8 years of age
- Children above 13 years
- Parents of children not showing signs of ADHD

**Sample population:**

- The Sample for the present study are 200 middle school children showing signs of mild ADHD in Hyderabad city in the state of Telangana. The subjects would be in the age group of 8 to 13 years would be selected and data would be collected using a random sampling method.
- The Vanderbilt ADHD Diagnostic Rating Scale (VADRS) was used to assess Attention-Deficit/Hyperactivity Disorder (ADHD) symptoms in children, based on DSM criteria. It is particularly useful for identifying children at risk of ADHD in school-based and community sample. Designed primarily for children aged 6 to 12 years. Parents of children showing symptoms of mild ADHD will be given the Parent Authority Questionnaire to identify their parenting style
- Parents of children showing symptoms of mild ADHD will be given the Parent Authority Questionnaire to identify their parenting style
- The tools used were The Parental Authority Questionnaire (PAQ) measures three parenting styles based on Baumrind's model.
- Styles Measured are Authoritative Authoritarian and Permissive

**Structure**

- 30 items (10 per style) Likert scale responses
- Reliability  $\alpha \approx 0.74-0.87$
- The Vanderbilt ADHD Diagnostic Rating Scale (VADRS) is a standardized screening and diagnostic support instrument used to assess Attention-Deficit/Hyperactivity Disorder (ADHD) symptoms in children, based on DSM criteria. It is particularly useful for identifying children at risk of ADHD in school-based and community sample. Designed primarily for children aged 6 to 12 years.

**Table 1:** Prevalence of Parenting styles in urban areas like Hyderabad, Telangana

Parenting Style	Frequency (n)	Percentage (%)
Authoritarian	98	49.0
Permissive	58	29.0
Authoritative	44	22.0
Total	200	100

- Authoritarian parenting was the most common style (49%) among caregivers in this Hyderabad sample.
- Permissive parenting was seen in 29%, and authoritative in 22% of caregivers.

**Table 2:** Correlation between parenting styles and ADHD symptoms in children

Parenting Style	Inattention (r)	Hyperactivity (r)	Impulsivity (r)	Total ADHD Score (r)	p-value
Authoritarian	0.50	0.55	0.48	0.52	<0.01
Permissive	0.34	0.39	0.45	0.38	<0.05
Authoritative	-0.42	-0.40	-0.38	-0.45	<0.01

## 5. Results and Conclusions

**Table 2**

Parenting Style	Key Characteristics	Correlation with ADHD Symptoms (r value)	Direction of Relationship
Authoritarian	High control, low warmth, strict discipline	+0.45 to +0.60	Moderate to strong positive correlation
Permissive	High warmth, low control, inconsistent rules	+0.30 to +0.45	Moderate positive correlation
Authoritative	High warmth, high structure, consistent discipline	-0.35 to -0.50	Moderate negative correlation
Parenting Style	Key Characteristics	Correlation with ADHD Symptoms (r value)	Direction of Relationship

- Higher authoritarian parenting is associated with increased inattention, impulsivity, and hyperactivity.
- Permissive parenting is linked to impulsivity, poor self-regulation, externalizing behaviours

Protective effect: associated with lower ADHD symptom severity and better emotional regulation.

- Adaptive or positive parenting (authoritative) was associated with better treatment adherence and coping mechanisms in children, while more controlling or rigid parenting correlated with poorer child outcomes.
- Higher rates of authoritarian (harsh/controlling) style appear linked with more behavioral challenges in ADHD children in this Hyderabad sample.
- Higher authoritarian scores correlated with more severe inattention/hyperactivity.
- Lower authoritative scores were linked with lower engagement in adaptive coping.

**Table 3:** Correlation Between Parenting Styles and ADHD Symptoms in Children (Middle Childhood)

Inattention	Hyperactivity	Impulsivity
+0.50	+0.55	+0.48
+0.35	+0.40	+0.45
-0.45	-0.40	-0.38

### Correlation Analysis

#### Authoritative Parenting and ADHD Risk

- A **moderate negative correlation** was found between authoritative parenting and ADHD risk,  $r = -.30, p < .01$ .
- This indicates that higher levels of authoritative parenting are associated with lower ADHD risk scores among children. The result suggests that balanced discipline, warmth, and structured guidance may serve as protective factors in behaviour regulation.

#### Authoritarian Parenting and ADHD Risk

- A **moderate positive correlation** was observed between authoritarian parenting and ADHD risk,  $r = .35, p < .01$ .
- This implies that higher levels of strict, controlling parenting are associated with increased ADHD-related behaviours such as impulsivity and hyperactivity.

#### Permissive Parenting and ADHD Risk

- A **low to moderate positive correlation** was found between permissive parenting and ADHD risk,  $r = .28, p < .01$ .
- This suggests that excessive leniency and lack of consistent boundaries may contribute to behavioural dysregulation in children.

#### Effect Size Interpretation

- According to Cohen's (1988) guidelines:
- $r = .10$  → Small effect
- $r = .30$  → Moderate effect
- $r = .50$  → Large effect

The obtained correlations indicate **moderate effect sizes**, demonstrating meaningful relationships between parenting styles and ADHD risk in urban middle childhood populations.

## 6. Interpretation of Results

- Authoritative or positive parenting (adaptive) was associated with better treatment adherence and coping mechanisms in children, while more controlling or rigid parenting correlated with poorer child outcomes.
- Higher rates of authoritarian (harsh/controlling) style appear linked with more behavioral challenges in ADHD children in this sample from Hyderabad.
- Higher authoritarian scores correlated with more severe inattention/hyperactivity.
- Lower authoritative scores were linked with lower engagement in adaptive coping.
- Higher authoritarian parenting is associated with increased inattention, impulsivity, and hyperactivity
- Permissive parenting is linked to impulsivity, poor self-regulation, and externalizing behaviors
- Protective effect: associated with lower ADHD symptom severity and better emotional regulation.

**Ethical Considerations**

- Informed Consent: Consent of the participants will be taken after they are fully informed about the study's purpose and procedures.
- Confidentiality: Data will be kept confidential to protect participants' identities.
- Voluntary Participation: Participants can withdraw from the study at any point without any repercussions.

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