

# Does Parenting Style Affect the Child's Cognitive Development?- A Survey

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**Abstract** - The progress and maturation of young individuals play a crucial role in influencing the future of society. The parenting approach plays a crucial role in influencing children's growth and development. This research focused on the investigation of Parenting styles followed by the target population and also tested the association between gender and involvement in the Child's school education. A descriptive study of 220 samples was collected using self-administered questionnaires using convenience sampling. The samples were from the State of Kerala in India. The questionnaire had demographic-related questions related to the parenting styles followed by the respondents. Proportional analysis and Chi-square tests were done as part of the analysis.

**Key Words:** Parenting, Parenting Style, Child, Cognitive Development, Chi-square Test.

## 1. INTRODUCTION

In the intricate tapestry of a child's development, the role of parenting styles emerges as a significant thread weaving through cognitive maturation. From the moment of birth, parents serve as the primary architects shaping the cognitive landscape of their offspring. A comprehensive grasp of the elements that impact child development is essential in striving to establish a supportive environment for wholesome and high-quality child growth (Berk, 2015; Britto et al., 2017). The manner in which parents interact, nurture, and discipline profoundly influences the cognitive abilities that burgeon during childhood. The parenting approach provided by parents or caregivers has a noteworthy influence on the development of children. This research embarks on a journey to unravel the intricate interplay between parenting styles and childhood cognitive development, probing the nuances, implications, and potential avenues for intervention.

Cognitive development lays the foundation for a child's future academic success, socio-emotional well-being, and overall life trajectory. It encompasses a spectrum of abilities, ranging from basic perceptual skills to complex problem-solving aptitudes. As such, understanding the factors that

mold cognitive development is paramount in fostering optimal growth and maximizing human potential.

Parenting styles, characterized by patterns of parental behavior and attitudes, serve as the scaffolding upon which a child's cognitive architecture is erected. Grounded in the seminal work of Baumrind (1966), parenting styles are typically classified into four archetypes: authoritative, authoritarian, permissive, and neglectful. Each style engenders distinct dynamics of warmth, control, and responsiveness, thereby imprinting unique imprints on a child's cognitive landscape.

Extensive empirical inquiry has elucidated the intricate interplay between parenting styles and childhood cognitive development. Studies have underscored the salutary effects of authoritative parenting, characterized by high levels of warmth and responsiveness coupled with reasonable levels of control, on cognitive outcomes. Conversely, authoritarian, permissive, and neglectful parenting styles have been associated with varied degrees of cognitive deficits, ranging from impaired executive functions to diminished academic performance. Good parenting has the potential to positively impact children's growth and holistic development, encompassing physical, emotional, social, and cognitive aspects (Evans et al., 2020; Van IJzendoorn & Juffer, 2006). Unsupportive or unhealthy parenting, on the other hand, can result in enduring adverse effects on the future of children.

### 1.1 OBJECTIVES

- An investigation of the Parenting styles followed among the target population and their impact
- To test the association between gender and the involvement of Parents in the Child's School education

## 2. LITERATURE REVIEW

Child's cognitive development is crucial for their overall growth and future success (Sartika, 2021). It is influenced by

various factors, including parental and child-related factors, such as maternal mental health and the child's health at birth (Sartika, 2021). However, the impact of child health on cognitive development is not as strong as previously thought (Kaestner, 1995). Cognitive processing and deficits play a significant role in child development and can lead to social and emotional dysfunction (Rutter, 1987). The growth and development of the brain, particularly the white and gray matter changes, are essential for a child's cognitive outcomes (Hüppi, 2010).

Fadlillah (2022) emphasizes the importance of the authoritative parenting style, which combines high demands with warmth and support, in optimizing early childhood cognitive competence. Tiller (2003) also underscores the influence of parenting styles, particularly authoritative, on children's cognitive ability. However, the study also highlights the role of family socioeconomic-demographic characteristics in this relationship. Neel (2018) further supports these findings, identifying parental responsiveness as a key factor in improving both cognitive and behavioral outcomes in former preterm infants.

Research consistently shows that parental involvement in a child's education has a significant impact on their academic achievement and overall development (Qi 2023, Tsurkan 2016, Parveen 2016, Muchuchuti 2016). This involvement is beneficial in various ways, including improving children's confidence, interest, and performance at school (Muchuchuti 2016). However, the level of parental involvement can vary, with some parents being less committed, particularly in rural and public urban schools (Muchuchuti 2016). Therefore, it is important for schools to actively engage parents and develop strong partnerships with them to ensure the best outcomes for children (Qi 2023, Tsurkan 2016, Parveen 2016).

### 3. RESEARCH METHODOLOGY

A descriptive study was used in this research to investigate student classroom incivility in higher education among the target group. The target group included 220 respondents from different parts of Kerala. Respondents were Parents of School children from the region. Kerala is one of the most literate states in India. Kerala is also a state where educational institutions like schools have been shown to generate high quality in their training and development of the students. Convenience sampling was used in data collection from the respondents. The survey instrument was a self-administered questionnaire which was a structured questionnaire. Google Forms were used to circulate and collect data from the target group. Statistical techniques used included proportionate analysis and Chi-square test

### 4. RESULTS AND DISCUSSION

The demographic characteristics in this table provide information about the sample population used in the research paper on parenting style and child's cognitive development.

#### 4.1 Demographic Characteristics and Survey on the Parenting Style among the respondents

Table 1

Demographic characteristic		
Age Group	n	%
Under 18years	26	12
18-24	59	27
25-34	55	25
35-44	40	18
45-55	18	8
Over 55 years	22	10
<b>Gender</b>		
Male	96	43.8
Female	124	56.2
<b>Education</b>		
Graduation	83	37.5
Postgraduation	55	25
Other	83	37.5

**Note:** Sample size N=220

From table 1, it could be seen that participants were distributed across age groups as follows: under 18 years (n = 26, 12%), 18-24 years (n = 59, 27%), 25-34 years (n = 55, 25%), 35-44 years (n = 40, 18%), 45-55 years (n = 18, 8%), and over 55 years (n = 22, 10%). The sample was comprised of 96 males (43.8%) and 124 females (56.2%). In terms of education, 83 (37.5%) participants had a graduation degree, 55 (25%) had a postgraduate degree, and 83 (37.5%) reported having other educational qualifications.

Table 2

#### How many children do you have?

No. of Children	n	%
None	82	37.4
One Child	55	25
2 Children	41	18.8
3 or more Children	41	18.8

Interestingly, the number of children participants had varied considerably. Nearly 37.4% had no children, while 25% had one child. The remaining participants were split almost evenly, with 18.8% having two children and another 18.8% having three or more children.

**Table 3**

**How much emphasis do you place on education in your parent? Please rate on a scale 1 to 5 where 1 = Very low and 5=Very High**

Rating	n	%
1	28	12.5
2	0	0
3	96	43.8
4	96	43.8
5	0	0

Participants (N=10) rated the emphasis they placed on education in their parenting on a scale of 1 (very low) to 5 (very high). The most frequent ratings were 3 (43.8%) and 4 (43.8%), indicating a moderate to high emphasis on education. Ratings of 1 (12.5%) were also observed, suggesting some variation in parental emphasis on education.

**Table 4**

**How would you describe your parenting style?**

Parenting Style	n	%
Authoritative	55	25
Authoritarian	84	38
Permissive	40	18
Uninvolved	42	19

The distribution of parenting styles among the participants (N = 221) revealed a preference for authoritarian styles (n = 84, 38.0%). A substantial portion also identified with authoritative parenting (n = 55, 25.0%). Permissive (n = 40, 18.2%) and uninvolved (n = 42, 18.8%) parenting styles were endorsed by a smaller but relatively equal number of participants.

**Table 5**

**How often do you engage in educational activities with your Child(ren) at home?**

Rating	n	%
Never	28	12.5
Rarely	96	43.8

Occasionally	55	25
Frequently	41	18.8

Over a third (43.8%) of the respondents rarely engage in educational activities with their children at home. Encouragingly, another 18.8% reported frequently engaging in these activities.

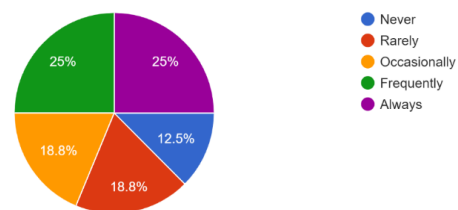
**Table 6**

**How do you discipline your child(ren) when they misbehave?**

Action	n	%
Time Out	83	37.5
Verbal Reprimand	96	43.8
Grounding	-	-
Taking away privileges	41	18.8

This data suggests that verbal reprimand (43.8%) is the most common disciplinary action used by parents in this sample (n = 220) when their children misbehave. Time out (37.5%) is another frequently used method, followed by taking away privileges (18.8%). Grounding appears to be an uncommon practice (0%).

**How often do you limit the screen time for your child(ren)?**



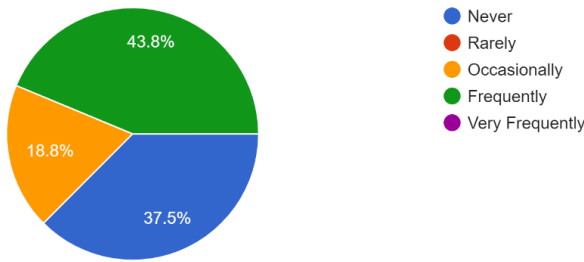
**Fig 1:**

Screen time for children

This visualization depicts the reported frequency of screen time limitations implemented by parents for their children. Fig 1 suggests that a majority of parents (56.3%) limit screen time to some degree. Specifically, 18.8% reported always limiting, another 18.8% frequently limiting, and 25% occasionally limiting their children's screen time. Conversely, 12.5% reported rarely limiting, and a concerning 28.8% admitted to never limiting their children's screen time.

**How often do you communicate with your child(ren) about their schoolwork?**

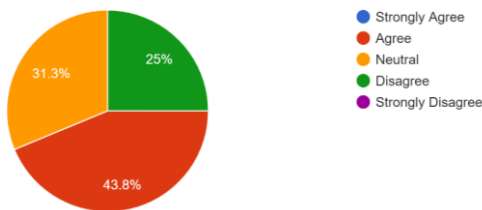
**Have you noticed any difference in cognitive development between your child(ren) and those of other parents with different parenting styles?**



**Fig 2: Communication between Parents and Child(ren) after school hours**

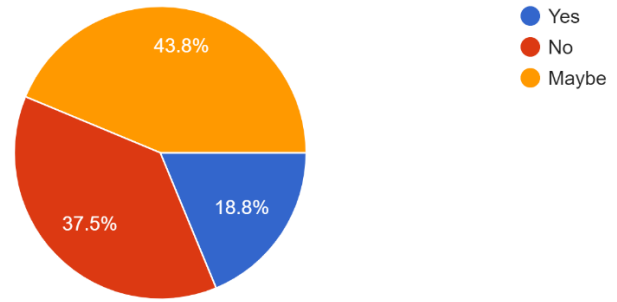
This data suggests that a majority of parents (79.1%) communicate with their children about schoolwork at least occasionally.

**Do you believe your parenting style has an impact on your child(ren)'s cognitive development?**



**Fig 3: Importance of Parenting Style on Child's Cognitive Development**

The survey found parents' beliefs on parenting style's impact on cognitive development varied. Over 56% (strongly agree & agree) believed it has an impact, while nearly half (43.8%) remained neutral. Previous literature suggested that parenting styles play a crucial role in early childhood cognitive development, with the authoritative style being the most appropriate for optimizing cognitive competence (Fadlillah & Pangastuti, 2022). A proper approach to parenting has a positive influence on children's social adjustment, self-worth, assurance, and cognitive capacity through affection, warmth, and encouragement (Jin, 2023).



**Fig 4: Impact of Parenting Style on Child's Cognitive Development**

Parents' perceptions of cognitive development varied in a survey. Nearly half (43.8%) noticed differences between their child and others, while 37.5% did not. According to previous literature, children show improved cognitive function and behaviour when their parents are highly responsive (Neel et al., 2018). The literature also mentions that the respectful approach to parenting plays a crucial role in shaping the noncognitive skills of children (Deng & Tong, 2020).

Table 7

**To what extent do you believe genetics play a role in a child's cognitive abilities?**

Role Influence on Child	n	%
No role at all	28	12.5
Minor Role	41	18.8
Moderate role	96	43.8
Major Role	-	-
The only Role	55	25

In a survey of parents (n likely = 220), the majority (43.8%) believed genetics play a **moderate role** in a child's cognitive abilities. However, a significant portion also reported believing genetics play a **minor role** (18.8%) or **no role at all** (12.5%). Interestingly, another quarter (25%) of the respondents believed genetics play the **only role** in a child's cognitive development.

Table 8

**Have you ever sought professional advice or support regarding your child(ren)'s cognitive development?**

Action	n	%
Yes	55	25
No	69	31.3
Maybe	96	43.8

In a survey of parents (n likely = 220), a substantial portion (43.8%) were unsure (maybe) whether they had ever sought professional advice or support regarding their child(ren)'s cognitive development. While 25.0% reported having sought professional help, 31.3% did not. This finding suggests that a significant number of parents may be unaware of or hesitant to seek professional support for their child's cognitive development.

**4.2 Chi-Square Test: Gender Vs How often do you get involved in your Child's School Education?**

H1: There is an association between gender and involvement in a child's school education by Parent

Table 9

**Level of Involvement in Child's School Education by the Parent**

Gender	Very Frequently	Frequently	Never	Occasionally	Total
Male	5	105			110
Female			83	27	110

Note: Sample Size = 220

Table 10

**Chi-Square Tests Summary**

	$\chi^2$	df	p
Pearson Chi-Square	182.143	9	<.05
Likelihood Ratio	157.165	9	<.05

Note: Sample Size = 220

A chi-square test of independence showed that there was significant association between gender and involvement of Parent in Child's School Education,  $\chi^2(9, N = 220) = 182.143$ ,

$p < .05$ . Similar to this, previous literature has also found that there was a strong positive correlation between involvement of parents in academic performance of school students (Boruah & Parashar, 2021). Some literature also suggested that boys were more benefitted from this intervention by parents in school academics than girls (Xiong et al, 2021). Conversely, to the result of this research, literature has sighted that there was no impact of gender of parents or students on the academic success of students based on involvement of parents(Lindberg & Güven, 2021).

**CONCLUSION**

Parenting styles play a critical role in shaping a child's cognitive development, influencing their abilities and academic performance. Research consistently shows that authoritative parenting, characterized by warmth, responsiveness, and clear but reasonable expectations, leads to the most positive cognitive outcomes. Children raised by authoritative parents tend to excel academically, develop stronger problem-solving skills, and demonstrate greater cognitive flexibility. Conversely, authoritarian, permissive, and neglectful parenting styles are associated with varying degrees of negative impacts on cognitive development, including lower academic achievement, reduced creativity, and difficulties with decision-making. Understanding the link between parenting styles and cognitive development is crucial for promoting optimal outcomes in children. The Chi-square test shows that there was impact of gender on the involvement of Parents in the Child's school education. Further research should be able to identify whether there is also affect of personality traits of the parents on the behaviour of the child which was not in the scope of this research.

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