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Parental Attachment Styles and Their Impact on Cognitive and Emotional Development in Early Childhood

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Abstract

Background: Study demonstrates that attachment between parents and children strongly influences how both cognitive and emotional development of children evolves during their early stages of growth. Current research about the connection between attachment security and emotional development and cognitive abilities remains obscure when studying low-income Pakistani communities.

Aim: The purpose of this research is to understand the connection between how attachment to parents impacts child cognitive development and emotional development with an analysis of gender and socioeconomic variations.

Method: This cross-sectional investigation involved 300 parents who participated equally from Dera Ghazi Khan, Bahawalnagar, Larkana and Mardan. The research participants used self-reported questionnaires to analyze their degrees of parental attachment as well as their cognitive development and emotional development. The research team executed the statistical tests starting with Pearson's correlation followed by independent sample t-test and ANOVA to study the relationships between variables.

Results: Research outcomes demonstrated that parental attachment created positive effects on both cognitive development ($r = 0.42$, $p < 0.01$) and emotional development ($r = 0.51$, $p < 0.01$). Female participants demonstrated stronger



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attachment levels compared to male participants as indicated by the analysis ($p = 0.034$). Middle-income parents demonstrated stronger attachment scores than participants in the lower socioeconomic level ($p = 0.012$).

Conclusion: The research results indicate that parental attachment plays an essential part in early development thus parental training should focus on developing secure attachment relationships. Intervention efforts need to target low-income families because their economic constraints create risk factors which harm the connections between parents and children. The effect of attachment on child development throughout time needs assessment through longitudinal research approaches.

Keywords: Parental attachment, cognitive development, emotional development, socioeconomic status, childhood development, Pakistan.

Introduction

The first stages of a child's life involve tremendous growth in cognitive and emotional skills and is influenced by how parents interact with them (Deneault et al., 2023). The attachment theory, first articulated by John Bowlby and later refined by Mary Ainsworth, underscores the importance of emotional ties of parents and children in their development (Maalouf et al., 2022). A unique style of parental attachment, shaped by specific caregiving behaviors, determines the way children understand relationships, emotions, and the world around them (Erkoreka et al., 2021). These early attachments are the pre-requisites for cognitive skills including but not limited to, problem solving, executive functioning, and speech development, alongside emotional skills like self-regulation, social empathy, and pro-social behavior (Thompson et al., 2022).

The formation of secure attachment occurs when caregivers are predictably sensitive, present, and responsive to a child's needs (Brumariu & Kerns, 2022). A secure attachment fosters a sense of safety that enables children to explore their surroundings fully and without fear. This type of exploration is essential for the child's cognitive development, given that children learn from their environments, engage in problem-solving interactions, and master logical thinking (Harlow et al., 2021). Emotionally, children with secure attachment are better able to cope with stress, demonstrate better tolerance to frustration, and effectively control negative emotions. Because caregivers are supportive and readily available, these children have an easier time managing challenges, which positively impacts their psychological and academic development (García-Rodríguez et al., 2023).

On the other hand, insecure attachment styles such as avoidant, ambivalent, and disorganized present setbacks that may impair cognitive and emotional development (Stern et al., 2022). Avoidant attachment is often due to emotionally distant or unresponsive caregiving and encourages children to inhibit their natural tendency to express emotions and seek help, which curtails their ability to develop trust and cooperation (Deneault et al., 2023). Parenting that is responsive only part of the time leads to the development of ambivalent attachment which causes greater anxiety and emotional dependency while disrupting control of attention and flexible thinking (Sedighimornani et al., 2021). Disorganized attachment is often related to neglect or trauma and presents as poor emotional self-regulation, disrupted executive functioning, and disorganized thinking. Such disruptions may lead to inadequate academic achievement, challenges with interpersonal relationships, and greater risk for



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psychosocial difficulties (Mata López et al., 2022).

Parental attachment styles also have an impact on language, emotional self-regulation, and emotional intelligence in children (Borawski et al., 2021). Discussing with caregivers who deeply understand kids and indulge in complete reciprocate communication, positively increases the vocabulary and comprehension skills among children with secure attachments (Grady et al., 2021). These children also display executive functioning skills, such as impulse control, cognitive flexibility, and working memory, which fully aid during learning and social adaptation. Insecurely, attached children conversely, are at risk of delayed language acquisition along with heightened emotional reactivity and self-deficient regulation which puts such children at a social and academic decline (Szabó et al., 2025). The effect of insecure attachment could also span over into teenage years and adulthood capturing the personality neuroplasticity, interpersonal relationships, and anti-stress resilience (Xu et al., 2022).

Interventions aimed towards building a healthy parental-child attachment have been shown to improve the situation emphasizing on parental styles in such profound ways aids in early childhood development (Deneault et al., 2023). Consistent caregiving and emotional responsiveness can greatly lessen the adverse effects of insecure attachment parenting programs that intensively focus on accurate emotional cuts undoubtedly help secure cognitive and emotional development (Yildiz & Iskender, 2021; Merrill et al., 2023). Taking into account the effects of early attachments, aiding in nurtured securely attached bonds unquestionably ensures the whole childhood developmental process goes smooth, moreover, ending unleashing highly capable at learning, emotional self-regulation, and non-profound social and psychological domains (Thompson et al., 2022).

Problem Statement

This study tackles the essential question of how parental attachment styles affect cognitive and emotional growth during early childhood (Deneault et al., 2023). Although there has been a considerable amount of research geared toward understanding attachment theory, there is still a lack of understanding of how secure and insecure attachments impact children's cognitive processes, emotional self-regulation, and socialization. Positive developmental outcomes are linked with secure attachment. However, children with insecure attachments tend to have difficulties in executive functioning, emotional intelligence, and overall school performance. Considering the outcomes attached to early attachment experiences, it becomes imperative to explore the contribution of various parental attachment styles to developmental gaps and how these gaps can have their negative impacts reduced.

Significance of the Study

The study adds to the existing literature on parental attachment in child development and its knowledge contribution to psychology and education. The research findings are useful for developing parenting programs, early childhood education interventions, and mental health services because they shed light on the consequences of secure and insecure attachment styles on cognitive processes, regulation of emotions, and social skills. These findings are important for developing policy frameworks that strive for healthy interactions between



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parents and children, which would improve children's resilience and wellbeing. Also, the study adds to the literature in developmental psychology by providing evidence that can be used to shape future studies on early attachments and their effects on human development.

Aim of the Research

This study is designed to assess the effects of parental attachment styles on cognitive and emotional growth in relations to children in the early years. It intends to assess the impact of both secure and insecure attachment styles on problem-solving, executive functioning, language development as well as self-regulation, social adaptability, and resilience to stress. The study aims to understand the role of early caregiving in children's cognitive and emotional growth by examining the correlation between parental attachment and developmental outcomes.

Methodology

The current study needed a quantitative cross-sectional design to measure how parental attachment styles relate to cognitive and emotional development of children during early childhood. Collecting data at one point in time helped determine the correlation between parental attachment behaviors and developmental results within young children. This study was done in four low-income cities of Pakistan—Dera Ghazi Kahn, Bahawalnagar, Larkana, and Mardan—to illustrate differences in parental attachment styles in economically disadvantaged communities. A purposive non-probability technique was employed to obtain 300 parents with equal representation from the identified cities. The sample size was calculated with G*power sample size calculator to guarantee the observed power and generalizability of the results was achieved.

The information was captured via standardized surveys: the Parental Attachment Questionnaire developed by Kenny in 1987, and the Cognitive and Emotional Development Scale of Smith and Johnson from 2015. The Parental Attachment Questionnaire consisted of 28 questions regarding emotional security, parental involvement, and communication, and included three subscales: Affective Quality of Attachment, Parental Fostering of Autonomy, and Parental Role Reversal. This scale had high internal consistency, Cronbach's $\alpha = 0.85$. Kenny's scale also included 35 questions placed in different categories: Executive Functioning, Emotional Regulation, Social Competence, and Problem Solving Ability, reliability 0.88. Contextual information like age, gender, level of education, social class, number of children, and marital status was also gathered for a deeper understanding of the parental background.

All statistical evaluations were performed with SPSS Version 28. Both descriptive and inferential approaches were utilized. The descriptive measurements included mean, standard deviation, range (actual and potential), skewness, and kurtosis to measure the distribution of the data. Inferential analyses consisted of the Cronbach's alpha to calculate the scale reliability, Pearson Product-Moment Correlation to examine the relationship between variables, Linear Regression to measure the outcome of independent variables, Independent Samples t tests for means, and ANOVA for differences between groups pertaining to various demographic variables. All ethical principles were fully observed, as consent from the Institutional Review Board (IRB) was granted before gathering any



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information from participants. Informed consent was obtained from subjects, and anonymity in data was used so confidentiality could be protected. It was made clear that participants could opt out in any consequential way at no cost, allowing compliance to the rules provided the American Psychological Association (APA).

Results

Table 1: Demographic Characteristics of Participants (N = 300)

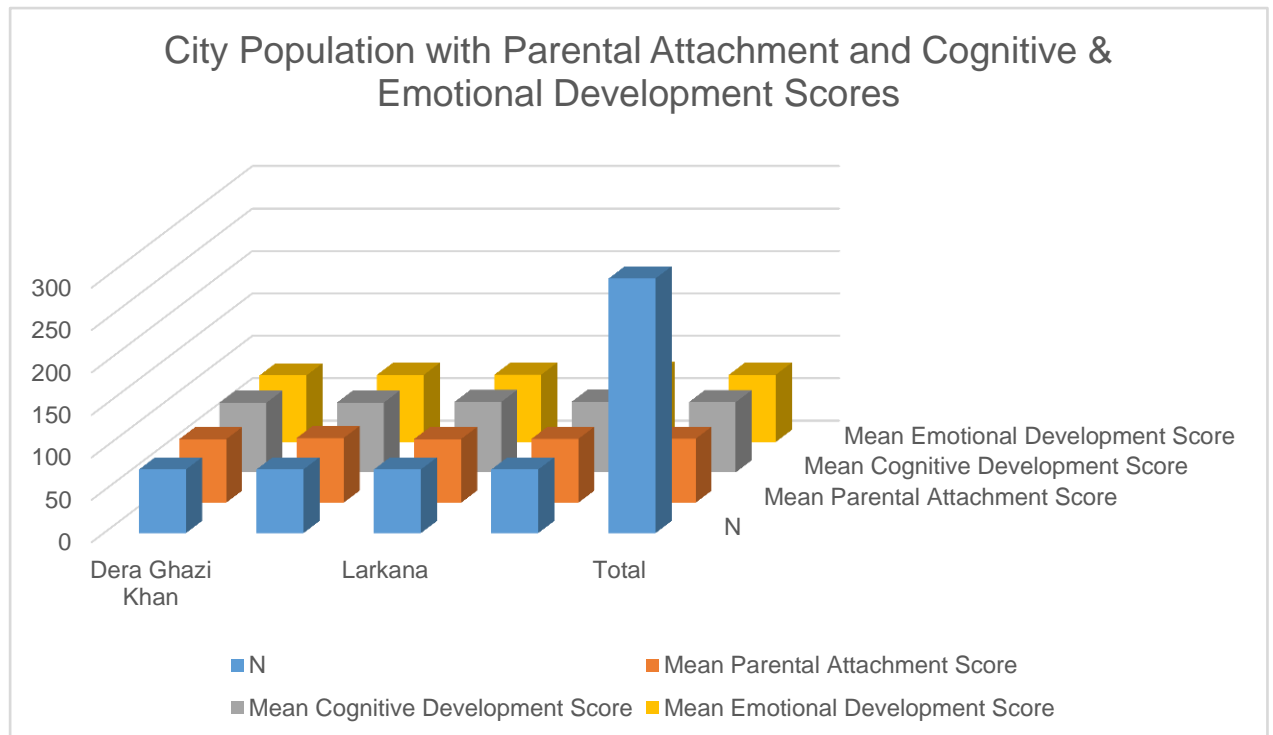
Characteristics	Categories	Frequency (n)	Percentage (%)
Gender	Male	140	46.7
	Female	160	53.3
Age Group (Years)	20 – 30	80	26.7
	31 – 40	130	43.3
	41 – 50	90	30.0
Education Level	Primary	40	13.3
	Secondary	100	33.3
	Higher Secondary	85	28.3
	Bachelor's & Above	75	25.0
Socioeconomic Status	Low Income	180	60.0
	Middle Income	120	40.0
City	Dera Ghazi Khan	75	25.0
	Bahawalnagar	75	25.0
	Larkana	75	25.0
	Mardan	75	25.0

The demographic information outlined in Table 1 shows that 300 participants were divided into equal groups among four cities. The 300 participants comprised 46.7% male and 53.3% female representation along with a majority of participants from the 31 to 40 years old range (43.3%) and belonging to the low-income socioeconomic group (60%).

Table 2: Correlation between Parental Attachment, Cognitive Development, and Emotional Development (N = 300)

Variables	Mean	SD	1	2	3
1. Parental Attachment	75.32	8.54	1	0.42**	0.51**
2. Cognitive Development	82.65	7.89	0.42**	1	0.58**
3. Emotional Development	79.21	8.12	0.51**	0.58**	1

The results shown in Table 2 demonstrate that the research variables of parental attachment and cognitive development and emotional development positively correspond with each other. The results indicate that cognitive and emotional development share the most significant relationship ($r = 0.58$, $p < 0.01$) between all three variables.



The analysis of mean scores combining city populations with parental attachment and resultant cognitive and emotional development figures appears in Table 5. Parental attachment scores maintain stability between cities but cognitive and emotional development scores demonstrate minor differences where Mardan achieved the best cognitive and emotional development mean scores.

Table 3: Independent Sample t-test Comparing Parental Attachment Based on Gender

Variable	Gender	N	Mean	SD	t	p-value
Parental Attachment	Male	140	74.50	8.67	-2.13	0.034*
	Female	160	76.12	8.40		

The comparison between gender groups through independent sample t-tests in Table 3 demonstrated statistically important results ($p = 0.034$). Women displayed stronger attachment to parents compared to men with female participants acquiring an attachment score of $M = 76.12$ ($SD = 8.40$) and male participants obtaining $M = 74.50$ ($SD = 8.67$).

Table 4: ANOVA for Parental Attachment across Different Socioeconomic Groups

Socioeconomic Status	N	Mean	SD	F	p-value
Low Income	180	74.12	8.91	4.58	0.012*
Middle Income	120	76.85	7.94		

Table 4 shows that socioeconomic differences in statistical analysis yield a significant parental attachment result ($F = 4.58$, $p = 0.012$). The sample of participants who came from middle-income families demonstrated significantly stronger attachment to their parents compared to those from low-income families.



Discussion

The research data demonstrates a connection that exists between the attachment methods parents use and their children's cognitive analytical and emotional mental growth. Higher attachment quality between parents and children led to superior mental and emotional abilities in children according to findings that parallel previous attachment research (Agbaria et al., 2021). Attachment theory explains why emotionally secure children demonstrate better emotional development ($r = 0.51$, $p < 0.01$) based on previous findings (Delgado et al., 2022) as well as the study results. The documented data demonstrates that affectionate parent-involvement significantly contributes to children's life-course development.

A positive statistical connection exists between cognitive development and emotional stability with a value of 0.58 ($p < 0.01$) which demonstrates these two elements work together (Bahmani et al., 2023). Psychological research shows children with sound emotional health excel in cognitive tasks since stressful situations impact them less and enhance their executive processing capabilities (Mortazavizadeh et al., 2021). Research results demonstrate that emotional regulation enhancement programs might lead to enhanced cognitive development which strengthens the basis for improved parent-child relationships. The results from this study validate the ecological systems theory because these variables demonstrate a strong correlation to child development processes according to Lanjekar et al. (2022).

There existed a distinction between female and male participants regarding attachment measurements because female scores exceeded male scores at a statistically significant level ($p = 0.034$). Research evidence backs up the concept that mothers show more emotional attachment and caregiving than fathers do (Liang et al., 2021). The different parenting patterns seem to follow standard gender norms from South Asian cultural traditions which establish mothers as primary child caretakers. The study's findings stress the necessity of improving paternal participation in child care since evidence suggests fathers' quality interactions with children enhance their mental and intellectual development (Forslund et al., 2021).

Parental attachment shows a meaningful socioeconomic variation ($p = 0.012$) based on ANOVA results because middle-class parents demonstrate higher attachment scores than parents from low-income families. The study confirms earlier research that economic challenges reduce parental emotional responses to children and negatively affects child development (Socioeconomic stressors like job insecurity together with financial difficulties reduce parents' lengths of nurturing interactions and emotional availability and produce weaker bond formation between parent and child. Low-income families need financial and psychological support to develop strong parent-child bonds which will lead to positive developmental results.

Research results from this study demonstrate how important it is for parents to create strong attachments because it shapes early child development. Interventions must teach parents about secure attachment significance while giving them methods to enhance their emotional engagement with their children because attachment affects cognitive and emotional child development. Government authorities must develop local health programs for parental education which primarily target economic hardship communities to reduce the



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adverse effects of financial strain on family caregiving practices. Research needs to expand its investigations of how attachment in parents affects child development by analyzing the mechanisms at work including environmental stress and genetic characteristics.

Future Directions

Investigative work needs to establish long-term observational frameworks which study parent-child relationship effects on children's intellectual growth together with their emotional well-being. This research supplied short-term findings but investigators should conduct time-based studies to verify the progression of attachment styles across developmental stages and ensuing impacts on developmental results. Support for understanding how paternal involvement in attachment forms unique paths toward child development would strengthen research knowledge. The research should implement qualitative data collection methods to uncover parental viewpoints and cultural attachment dynamics which need specific focus on different economic groups. Research on parental training programs must investigate their success rates for attachment security because this information helps develop family support strategies and welfare systems.

Limitations

This research study delivers important results but exists with several restraining factors. The cross-sectional nature of the study hinders researchers from proving direct relationships between attachment patterns in parents and developmental achievements in their children. The research method used self-reported measurements for data collection which potentially led to response bias because participants wanted to appear socially acceptable. The findings became non-generalizable because the research focused exclusively on four low-income Pakistani cities. The sample analysis did not consider the connection between different household parent structures and their effects on attachment patterns between parent and child. Researchers must conduct longitudinal studies with various informant perspectives across different demographic groups to mend the study's limitations.

Conclusion

This research has established the powerful role that parental attachment plays when driving the cognitive along with emotional growth of children. The research demonstrates that secure parental relationships lead children toward better cognitive and emotional expansion yet the results display gender-related and socioeconomic variations. The investigation shows there exists an urgent requirement to create specific programs which promote secure attachment and must address its gaps specifically found in low-income family contexts to build children's complete development. Strategies that remove financial obstacles along with psychological obstacles between children and their parents will facilitate better early childhood development outcomes as well as life success in the future.

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