

## EFFECT OF PARENTING STYLE ON SELF-ESTEEM AND ACADEMIC PERFORMANCE OF SCHOOL CHILDREN

Noor-ul-Ain<sup>1</sup>, Asad Ullah<sup>\*2</sup>, Saira Saeed<sup>3</sup><sup>1</sup>School of Education, Zhengzhou University, 450000, China<sup>2</sup>Department of Educational Research & Assessment, University of Okara, Okara, 56300, Pakistan<sup>3</sup>PhD scholar, Ibadat International University, Islamabad, Pakistan.<sup>2</sup>asadullahsial786@gmail.comDOI: <https://doi.org/10.5281/zenodo.21214843>**Keywords**

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Corresponding Author: \*

Asad Ullah

**Abstract**

The present study investigated the effect of parenting style on self-esteem and academic performance among school children, with self-esteem examined as a potential mediating variable. A quantitative, cross-sectional, correlational research design was employed, and data were collected from a sample of 300 school students (aged 10–16 years) selected through stratified random sampling from public and private schools. Standardized instruments were used to measure parenting style, self-esteem, and academic performance. Data were analyzed using descriptive statistics, Pearson correlation, multiple regression, one-way ANOVA, and mediation analysis. The results revealed that parenting style significantly influences both self-esteem and academic performance. Students raised under authoritative parenting demonstrated the highest academic achievement, whereas those under neglectful parenting showed the lowest performance. Correlation analysis indicated significant positive relationships among parenting style, self-esteem, and academic performance. Regression analysis further confirmed that both parenting style and self-esteem significantly predicted academic performance, with self-esteem emerging as the stronger predictor. Mediation analysis indicated that self-esteem partially mediated the relationship between parenting style and academic performance, explaining approximately half of the total effect. Additionally, ANOVA results showed significant differences in academic performance across parenting styles. The findings highlight that authoritative parenting fosters higher self-esteem and better academic outcomes, while neglectful parenting is associated with poorer psychological and educational development. The study concludes that parenting style plays a crucial role in shaping children's academic success both directly and indirectly through self-esteem. These results emphasize the importance of promoting supportive and balanced parenting practices to enhance students' psychological well-being and academic achievement.

**1. INTRODUCTION**

The family environment is widely recognized as the earliest and most influential social context in which a child develops fundamental cognitive, emotional, and social competencies (Grusec et al., 2011). It serves as the primary setting where children learn values, behavioral norms,

communication patterns, and emotional regulation strategies. Among the various family-related determinants of child development, parenting style plays a particularly central role in shaping personality development, psychological well-being, academic engagement, and long-term life outcomes. Parenting style refers to the

consistent emotional climate, attitudes, and behavioral strategies that parents use in raising their children (Darling et al., 2017). It encompasses multiple dimensions of parent-child interaction, including warmth, responsiveness, communication patterns, disciplinary approaches, and the degree of behavioral control imposed on the child. These dimensions collectively influence how children perceive themselves and how they respond to academic and social challenges. In this regard, parenting style is not merely a set of isolated behaviors but a stable relational framework that significantly determines developmental trajectories during childhood and adolescence. One of the most important psychological constructs influenced by parenting practices is self-esteem, which refers to an individual's overall subjective evaluation of personal worth and self-value. Self-esteem plays a critical role in shaping a child's emotional resilience, motivation, decision-making abilities, and interpersonal relationships (Sharma et al., 2024). Children with high self-esteem are generally more confident, socially competent, and capable of handling academic pressure effectively. In contrast, low self-esteem is associated with anxiety, fear of failure, poor motivation, and reduced academic engagement. Closely linked to self-esteem is academic performance, which represents a child's level of achievement in educational settings. It is commonly assessed through grades, standardized test scores, classroom participation, completion of assignments, and overall cognitive engagement. Academic performance is not solely determined by intellectual ability; rather, it is influenced by emotional stability, motivation, self-regulation, and environmental support. In this context, self-esteem acts as a key psychological mechanism that mediates how children approach learning tasks, cope with academic challenges, and sustain effort over time. Importantly, self-esteem and academic performance are deeply interconnected. Children who possess a positive self-concept are more likely to set higher academic goals, demonstrate persistence in learning, and recover effectively from academic setbacks (Pajares et al., 2001). Conversely, children with low self-esteem may avoid academic challenges, experience fear

of failure, and exhibit lower levels of achievement. This reciprocal relationship highlights the importance of examining the underlying family factors that contribute to both constructs, particularly parenting style.

A widely accepted framework for understanding parenting behavior was developed by Diana Baumrind, who identified three major parenting styles: authoritative, authoritarian, and permissive (Fadlillah et al., 2022). This model was later expanded by Maccoby and Martin, who introduced a fourth category: neglectful or uninvolved parenting. These parenting styles are distinguished based on two fundamental dimensions: responsiveness (warmth) and demandingness (control) (Ahmed et al., 2025). Authoritative parenting is characterized by high responsiveness and high demandingness, where parents provide emotional support while maintaining clear rules and expectations. Authoritarian parenting is high in control but low in warmth, emphasizing obedience and strict discipline. Permissive parenting is high in warmth but low in control, allowing considerable behavioral freedom with minimal structure. Neglectful parenting is characterized by low levels of both responsiveness and control, often reflecting emotional detachment and lack of involvement in the child's life. Each of these parenting styles has distinct implications for child development outcomes. Authoritative parenting is generally associated with positive psychological and academic outcomes due to its balanced approach, which fosters independence while maintaining structure. In contrast, authoritarian and neglectful parenting styles are more commonly associated with negative outcomes, including low self-esteem, anxiety, behavioral problems, and poor academic performance. Permissive parenting produces mixed outcomes, often resulting in emotional well-being but weak academic discipline and inconsistent performance.

Understanding the influence of parenting styles on children's developmental outcomes is essential for multiple stakeholders, including educators, psychologists, counselors, and policymakers. Differences in student behavior and academic achievement within the same school environment often reflect variations in home environments rather than differences in

intelligence or school quality (Svensson et al., 1971). Therefore, examining parenting styles provides valuable insights into addressing educational disparities and improving student outcomes through family-centered interventions. Furthermore, this understanding is critical for developing effective educational and psychological support systems. Schools that actively engage parents and promote awareness of effective parenting practices can significantly enhance both emotional and academic development in children. This is particularly important in contemporary educational contexts where students face increasing academic pressure, social challenges, and emotional stress. This research aims to provide a comprehensive and systematic analysis of the relationship between parenting style, self-esteem, and academic performance among school children. By synthesizing theoretical perspectives and empirical findings, the study seeks to clarify how different parenting approaches influence children's psychological development and educational achievement. Ultimately, it highlights the importance of adopting balanced and supportive parenting strategies that foster both emotional well-being and academic success in children.

## 2. Literature Review

### 2.1 Concept of Parenting Style

Parenting style is a foundational construct in developmental psychology that describes the overall emotional climate in which parents raise their children. It reflects the consistent patterns of attitudes, behaviors, and emotional responses that parents exhibit toward their children across different situations. Rather than focusing on specific parenting practices, parenting style captures the broader relational context that shapes child development. Baumrind first conceptualized parenting styles based on two key dimensions: responsiveness (warmth) and demandingness (control) (Power et al., 2013). Responsiveness refers to the degree of emotional support, affection, and acceptance provided by parents, while demandingness refers to the extent to which parents enforce rules, discipline, and expectations for mature behavior. Based on these dimensions, Baumrind identified three primary parenting styles: authoritative, authoritarian, and permissive. Later, Maccoby

and Martin expanded this model by introducing a fourth category, neglectful or uninvolved parenting, characterized by low responsiveness and low control (Alfred et al., 2012). This typology has been widely adopted in psychological and educational research due to its strong explanatory power in predicting child developmental outcomes, including emotional regulation, social competence, academic achievement, and self-concept.

### 2.2 Theoretical Foundations

#### 2.2.1 Baumrind's Parenting Theory

Baumrind's theory remains the most influential framework for understanding parenting styles (Morris et al., 2013). According to her model, the balance between parental warmth and control determines child outcomes. Authoritative parenting promotes autonomy and self-regulation, authoritarian parenting emphasizes obedience, permissive parenting encourages freedom without structure, and neglectful parenting reflects disengagement from the child's developmental needs. Research consistently supports Baumrind's claim that authoritative parenting produces the most favorable developmental outcomes, including higher self-esteem and better academic performance.

#### 2.2.2 Bandura's Social Learning Theory

Bandura proposed that children learn behaviors through observation, imitation, and modelling (Bandura et al., 2018). In the context of parenting, children observe their parents' emotional regulation, communication patterns, and problem-solving strategies. These observed behaviors are internalized and later reflected in children's academic habits and self-perception. For instance, parents who demonstrate persistence, organization, and positive attitudes toward learning tend to raise children who exhibit similar academic behaviors. Conversely, inconsistent or emotionally detached parenting may result in poor self-regulation and low academic motivation.

#### 2.2.3 Erikson's Psychosocial Development Theory

Erikson emphasized that early childhood and school-age years are critical for developing a

sense of industry versus inferiority (VanderVen et al., 2015). During this stage, children form beliefs about their competence based on feedback from parents, teachers, and peers. Supportive parenting fosters a sense of industry, leading to confidence in academic tasks. In contrast, harsh or neglectful parenting may result in feelings of inferiority and low self-worth.

### 2.3 Parenting Style and Self-Esteem

Self-esteem is a central psychological construct that reflects an individual's perception of self-worth and personal value (Stets et al., 2014). It develops gradually through interactions with significant others, particularly parents, during early childhood. A large body of research indicates that parenting style plays a crucial role in shaping self-esteem. Authoritative parenting is strongly associated with high self-esteem because it provides a balance of emotional support and structured guidance. Children raised in authoritative households tend to feel valued, respected, and competent, which contributes to a positive self-concept. In contrast, authoritarian parenting is often associated with lower self-esteem. The emphasis on obedience, punishment, and limited emotional expression can lead children to internalize feelings of inadequacy and fear of failure. Such children may comply with rules but lack confidence in their own decision-making abilities.

Permissive parenting produces inconsistent effects on self-esteem. While children may feel emotionally accepted, the absence of boundaries and guidance can create uncertainty in self-evaluation and self-discipline. Neglectful parenting is most strongly associated with low self-esteem due to emotional unavailability and lack of parental involvement, which often results in feelings of rejection and insecurity. Empirical studies across diverse cultural contexts consistently confirm these relationships, highlighting parenting style as a key predictor of a child's self-worth and emotional stability.

### 2.4 Parenting Style and Academic Performance

Academic performance is influenced by cognitive ability, but also significantly shaped by emotional, motivational, and environmental

factors (Tucker-Drob et al., 2017). Parenting style plays a crucial role in determining how children approach learning tasks, manage academic pressure, and sustain effort. Authoritative parenting is consistently linked with higher academic achievement. This style promotes discipline, curiosity, and intrinsic motivation. Children from authoritative households tend to develop effective study habits, higher academic engagement, and better problem-solving skills. Parental involvement in education, combined with emotional support, creates a conducive learning environment. Authoritarian parenting shows mixed outcomes. While strict discipline may lead to compliance and short-term academic success, it often suppresses creativity and intrinsic motivation. Students may perform well in structured environments but struggle with independent learning and critical thinking tasks.

Permissive parenting is generally associated with lower academic performance due to a lack of structure and academic discipline (Pinquart et al., 2026). These children often exhibit poor time management, reduced persistence, and inconsistent study habits. Neglectful parenting has the most negative impact on academic performance. Lack of supervision, emotional neglect, and absence of educational support contribute to poor school engagement, low attendance, and academic underachievement.

### 2.5 Empirical Studies on Parenting Style and Child Outcomes

Numerous empirical studies across different regions support the relationship between parenting style and child outcomes. Steinberg (2001) found that adolescents raised in authoritative households demonstrated higher academic competence, better psychological adjustment, and stronger social skills. Similarly, Lamborn et al. (1991) reported that authoritative parenting was positively associated with academic success and psychosocial maturity. In contrast, research by Dornbusch et al. (1987) showed that authoritarian parenting was associated with lower academic achievement and reduced self-confidence, particularly in adolescents (Theresya et al., 2018). Studies have also shown that permissive and neglectful parenting styles are linked to behavioral

problems and poor academic outcomes. Cross-cultural research suggests that while cultural norms may influence parenting expression, the overall benefits of authoritative parenting remain consistent across diverse societies.

## 2.6 Mediating and Moderating Factors

The relationship between parenting style, self-esteem, and academic performance is not direct in all cases. Several mediating and moderating variables influence these relationships.

### 2.6.1 Motivation

Intrinsic motivation plays a key mediating role. Authoritative parenting enhances intrinsic motivation by supporting autonomy, while authoritarian parenting often leads to extrinsic motivation based on fear or reward.

### 2.6.2 Emotional Regulation

Children raised in supportive environments develop better emotional regulation skills, allowing them to manage academic stress effectively.

### 2.6.3 Socio-Economic Status

Family income and educational resources can moderate the effect of parenting style on academic performance.

### 2.6.4 Teacher and School Environment

Supportive school environments can partially compensate for less effective parenting styles.

### 2.6.5 Peer Influence

Peer groups significantly influence academic behavior and self-esteem, either reinforcing or weakening parental effects.

## 2.7 Summary of Literature Review

The literature strongly suggests that parenting style is a major determinant of both self-esteem and academic performance in school children. Authoritative parenting consistently produces the most favorable outcomes, while authoritarian, permissive, and neglectful styles are associated with varying degrees of psychological and academic challenges. Theoretical and empirical evidence collectively highlight that a balanced approach combining warmth, support, and structured discipline is essential for healthy child development.

Furthermore, self-esteem acts as a critical psychological mechanism through which parenting style influences academic achievement.

## 3. Methodology

The comprehensive description of the research methodology adopted to examine the relationship between parenting style, self-esteem, and academic performance among school children has been. It includes research design, population, sampling techniques, instrumentation, data collection procedures, and statistical analysis methods.

### 3.1 Research Design

The present study adopts a quantitative, cross-sectional, descriptive-correlational research design. This design is appropriate because it enables the examination of relationships between variables: parenting style (independent variable), self-esteem (mediating variable), and academic performance (dependent variable) without manipulating any conditions. A correlational approach is particularly suitable for psychological and educational research where variables naturally occur in real-life settings. The cross-sectional nature of the study means that data is collected at a single point in time, allowing for an efficient assessment of associations among variables.

### 3.2 Study Population

The target population of this study consists of school-going children aged 10 to 16 years enrolled in public and private schools. This age group is selected because:

- It represents a critical stage of cognitive and emotional development.
  - Students at this stage actively form self-concept and academic identity.
  - Parenting influence remains significant during middle and early secondary school years.
- The population includes students from diverse socio-economic backgrounds to ensure variability in parenting practices and academic outcomes.

### 3.3 Sample Size and Sampling Technique

A total sample (N = 300 students) across Pakistan is considered adequate for statistical

analysis and generalization of results. A stratified random sampling technique was employed to ensure adequate representation of participants across key demographic characteristics and to enhance the generalizability of the study findings. The target population was first divided into homogeneous strata based on gender (male and female), school type (public and private), grade level (Grades 6–10), and socio-economic status (low-, middle-, and high-income groups). Subsequently, participants were randomly selected from each stratum in proportion to its representation within the population. This approach minimized sampling bias by ensuring that all relevant subgroups were appropriately represented in the final sample. Furthermore, stratified random sampling improved the precision, reliability, and validity of the findings by reducing sampling error and facilitating more accurate comparisons among different demographic groups.

### 3.4 Variables of the Study

#### 3.4.1 Independent Variable

The independent variable in this study was parenting style, which was categorized into four dimensions based on the parenting style framework: authoritative, characterized by high responsiveness and appropriate parental control; authoritarian, characterized by strict discipline and low responsiveness; permissive, characterized by high warmth and low behavioral control; and neglectful, characterized by low levels of both parental responsiveness and involvement.

#### 3.4.2 Dependent Variables

The study included two dependent variables: self-esteem and academic performance. Self-esteem refers to students' overall evaluation of their self-worth, confidence, and personal value, whereas academic performance refers to students' level of educational achievement, as reflected in their academic grades and overall school performance. These variables were examined to determine the extent to which different parenting styles influence students' psychological well-being and educational outcomes.

#### 3.4.3 Mediating Variable

The mediating variable in this study was self-esteem, which was also analyzed as an intermediary construct through which parenting styles influence academic performance. It was examined to determine whether self-esteem serves as a psychological mechanism linking different parenting styles with students' academic outcomes.

#### 3.4.4 Control Variables

The study controlled for several demographic and contextual variables that could potentially influence the relationship between parenting style, self-esteem, and academic performance. These included age, gender, socio-economic status, and school type (public or private). Controlling for these variables helped to reduce confounding effects and ensured a more accurate estimation of the relationships among the primary study variables.

### 3.5 Research Instruments

Three standardized instruments were used for data collection:

#### 3.5.1 Parenting Style Questionnaire (PSQ)

The Parenting Style Questionnaire (PSQ) was adapted from established frameworks based on Baumrind's model to assess students' perceptions of parenting behaviors. The instrument measured four key dimensions, including emotional warmth, discipline and control, communication quality, and autonomy support. Responses were recorded on a 5-point Likert scale ranging from 1 = Strongly Disagree to 5 = Strongly Agree. Based on the aggregate scores across these dimensions, each respondent was classified into a single dominant parenting style determined by the highest scoring pattern.

#### 3.5.2 Rosenberg Self-Esteem Scale (RSES)

Self-esteem was measured using the Rosenberg Self-Esteem Scale (RSES), a widely validated 10-item psychological instrument designed to assess global self-worth. The scale evaluates individuals' overall feelings of self-acceptance and self-value. Responses were recorded on a 4-point Likert scale, where higher scores indicate higher levels of self-esteem. The RSES has demonstrated strong psychometric properties in previous

research, with reported reliability coefficients (Cronbach's alpha) typically exceeding 0.80.

### 3.5.3 Academic Performance Index (API)

Academic performance was assessed using a self-reported academic grading system, which was subsequently converted into standardized performance categories. These categories included Excellent (80–100%), Good (70–79%), Average (50–69%), and Poor (below 50%), representing high, above-average, moderate, and low academic achievement levels, respectively. Where possible, self-reported academic scores were cross-verified with official school records to enhance data accuracy and validity.

## 3.6 Validity and Reliability

### 3.6.1 Validity

Content validity of the research instruments was ensured through multiple procedures. First, all instruments were reviewed by experts in educational psychology to evaluate their relevance, clarity, and appropriateness for the target population. Second, the measurement items were aligned with established theoretical frameworks, including Baumrind's parenting style theory, Erikson's psychosocial development theory, and Bandura's social learning theory, to ensure strong theoretical grounding. Finally, a pilot study was conducted on a small sample of students ( $n = 30$ ) to identify ambiguities and improve the overall clarity and applicability of the instruments before final data collection.

### 3.6.2 Reliability

The reliability of the study instruments was assessed using Cronbach's Alpha coefficient to determine internal consistency. The Parenting Style Scale demonstrated a reliability value of  $\alpha = 0.82$ , the Self-Esteem Scale showed  $\alpha = 0.87$ , and the Academic Performance measure yielded  $\alpha = 0.79$ . These results indicate acceptable to high levels of internal consistency across all instruments, confirming that the scales are reliable for measuring the intended constructs.

## 3.7 Data Collection Procedure

The data collection process followed a structured sequence:

- i. Permission obtained from school administrations.

- ii. Ethical approval was ensured from the relevant institutional committee.

- iii. Students were briefed about the purpose of the study.

- iv. Consent obtained from students and, where required, parents.

- v. Questionnaires were administered in classroom settings under supervision.

- vi. Participants were assured confidentiality and anonymity.

- vii. Completed questionnaires were collected and screened for completeness.

## 3.8 Ethical Considerations

The study adhered to strict ethical guidelines to ensure the protection of participants' rights and well-being. Participation in the study was entirely voluntary, and students were informed that they could refuse participation without any consequences. Confidentiality of all respondents was strictly maintained, and no personal identifiers were collected or recorded at any stage of the research. The data obtained were used solely for academic research purposes and were not shared with any unauthorized individuals or institutions. Furthermore, participants were informed of their right to withdraw from the study at any point without penalty, ensuring full compliance with ethical research standards.

## 3.9 Data Analysis Techniques

The data were analyzed using a combination of statistical techniques to address the research objectives (Currall et al., 1999). Descriptive statistics, including mean, standard deviation, and frequency distribution, were employed to summarize and describe the characteristics of the data. Pearson correlation coefficient was used to examine the relationships among parenting style, self-esteem, and academic performance. Furthermore, multiple regression analysis was conducted to determine the predictive influence of parenting style and self-esteem on academic performance. In addition, one-way ANOVA was applied to compare academic performance across different parenting styles (authoritative, authoritarian, permissive, and neglectful) to identify any statistically significant differences between groups.

3.10 Conceptual Framework of the Study

The conceptual model of this study proposes that parenting style plays a central role in shaping students' academic performance both directly and indirectly. Specifically, parenting style influences self-esteem, which serves as a key psychological mechanism through which children develop confidence, motivation, and a positive self-concept that ultimately affects their academic behavior and achievement. In addition to this indirect pathway, parenting style also has

a direct effect on academic performance by providing structure, discipline, emotional support, and learning guidance that directly enhance students' educational outcomes. Thus, the model assumes a dual pathway in which parenting style not only fosters psychological development, such as self-esteem, but also independently contributes to academic success through behavioral regulation and supportive parenting practices. The schematic flowchart is shown in Figure 1.

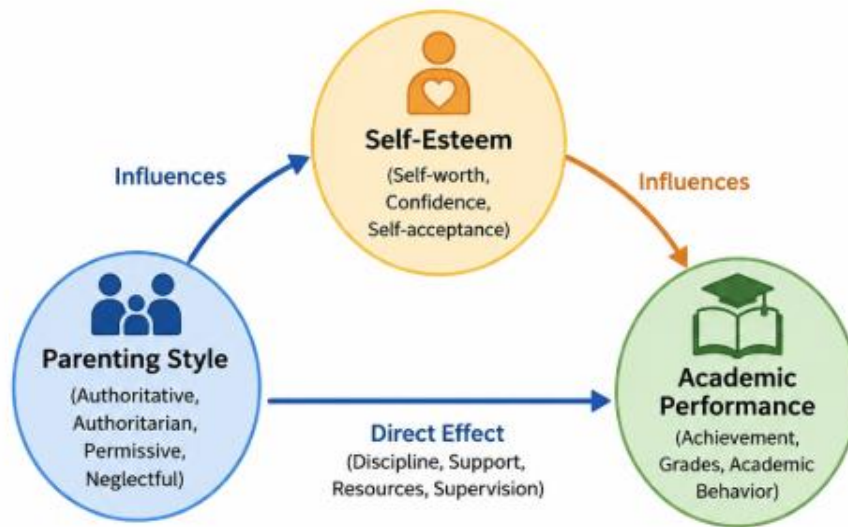


Figure 1: Schematic flowchart of the framework of the study

4.1 Demographic Characteristics of Participants

A total of 300 school children participated in this study across Pakistan. The participants represented both public and private schools and included students from Grades 6 to 10. The sample was almost equally distributed by gender, ensuring balanced representation. Most participants belonged to the middle socioeconomic group, while students from low-

and high-income families were also adequately represented. The demographic characteristics of the respondents are summarized in Table 1. The sample consisted of nearly equal numbers of male and female students, indicating minimal gender bias. More than half of the participants attended public schools, and approximately half belonged to middle-income families, providing adequate demographic diversity for statistical analyses.

Table 1. Demographic Characteristics of the Participants (N = 300)

Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	148	49.3
	Female	152	50.7
Age (years)	10-12	94	31.3
	13-14	121	40.3
	15-16	85	28.4
School Type	Public	162	54.0
	Private	138	46.0

Grade	Grade 6	56	18.7
	Grade 7	60	20.0
	Grade 8	64	21.3
	Grade 9	61	20.3
	Grade 10	59	19.7
Socioeconomic Status	Low	82	27.3
	Middle	151	50.3
	High	67	22.4

**4.2 Reliability Analysis**

Cronbach's alpha coefficients were calculated to determine the internal consistency of the study instruments. All scales demonstrated satisfactory reliability, with alpha values exceeding the recommended threshold of 0.70. The reliability coefficients indicate good internal consistency of the instruments. The Rosenberg Self-Esteem Scale demonstrated the highest reliability ( $\alpha =$

0.87), while the Academic Performance Index also exhibited acceptable reliability ( $\alpha = 0.79$ ). Authoritative parenting emerged as the most prevalent parenting style among the participants, accounting for approximately two-fifths of the sample. Neglectful parenting represented the smallest proportion. All these results are presented in Table 2.

**Table 2. Reliability Analysis of Study Instruments**

Instrument	Number of Items	Cronbach's $\alpha$
Parenting Style Questionnaire	30	0.82
Rosenberg Self-Esteem Scale	10	0.87
Academic Performance Index	8	0.79

**4.3 Distribution of Parenting Styles**

Students were categorized according to the parenting style they perceived as dominant in their family environment. The authoritative parenting style was the most frequently reported, whereas neglectful parenting was the least

common. Authoritative parenting emerged as the most prevalent parenting style among the participants, accounting for approximately two-fifths of the sample. Neglectful parenting represented the smallest proportion. All these results are presented in Figure 2.

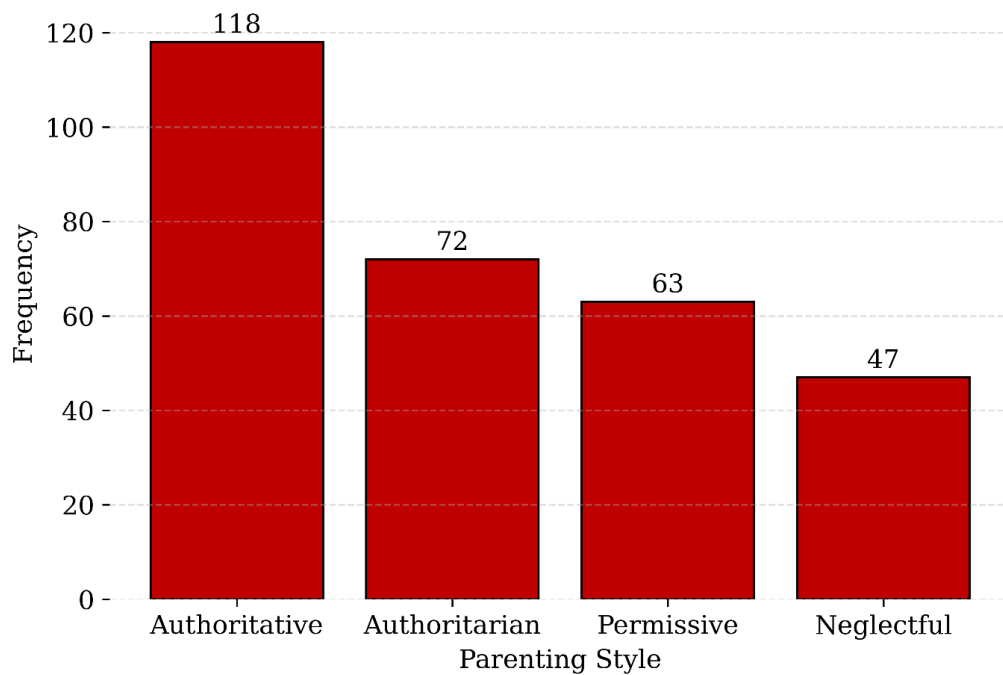


Figure 2. Distribution of Parenting Styles

4.4 Descriptive Statistics

Table 3 presents the descriptive statistics of the main study variables, namely parenting style score, self-esteem, and academic performance. The mean parenting style score ( $M = 3.69$ ,  $SD = 0.61$ ) indicates that, on average, students perceived their parents as moderately to highly supportive and structured, reflecting generally positive parenting practices with a reasonable level of variation across respondents (range = 2.10–4.91). Self-esteem scores showed a mean of 31.52 ( $SD = 4.83$ ), suggesting that most students possessed moderate to high self-worth and confidence, although the wide range (18–40)

indicates the presence of both low and high self-esteem individuals within the sample, ensuring sufficient psychological diversity. Similarly, academic performance showed an overall above-average level ( $M = 76.41\%$ ,  $SD = 8.92$ ), falling within the “good” performance category, with scores ranging from 51% to 96%, reflecting noticeable differences in students’ academic achievement. Overall, the variability across all variables demonstrates adequate dispersion in the data, confirming that the dataset is suitable for further inferential analyses such as correlation, regression, and mediation.

Table 3. Descriptive Statistics of Study Variables

Variable	Mean	SD	Minimum	Maximum
Parenting Style Score	3.69	0.61	2.10	4.91
Self-Esteem	31.52	4.83	18	40
Academic Performance (%)	76.41	8.92	51	96

4.5 Academic Performance According to Parenting Style

Figure 3 clearly demonstrates a systematic decline in academic performance across parenting styles, with a strong gradient from authoritative to neglectful parenting. Students

raised under authoritative parenting achieved the highest mean academic score ( $83.8\% \pm SD$ ), indicating superior academic outcomes. This is followed by authoritarian parenting with a mean score of 74.5%, and permissive parenting with 71.2%. The lowest academic performance was

observed among students experiencing neglectful parenting, who recorded a mean score of 65.9%. The error bars (standard deviations) suggest some variability within each group, but the overall pattern remains consistent and statistically meaningful. This trend highlights that parenting styles characterized by high responsiveness and appropriate structure

(authoritative) are associated with better academic achievement, whereas low involvement (neglectful) is linked to poorer outcomes. Authoritarian and permissive styles fall in the intermediate range, reflecting partial support or structure but not the optimal balance seen in authoritative parenting.

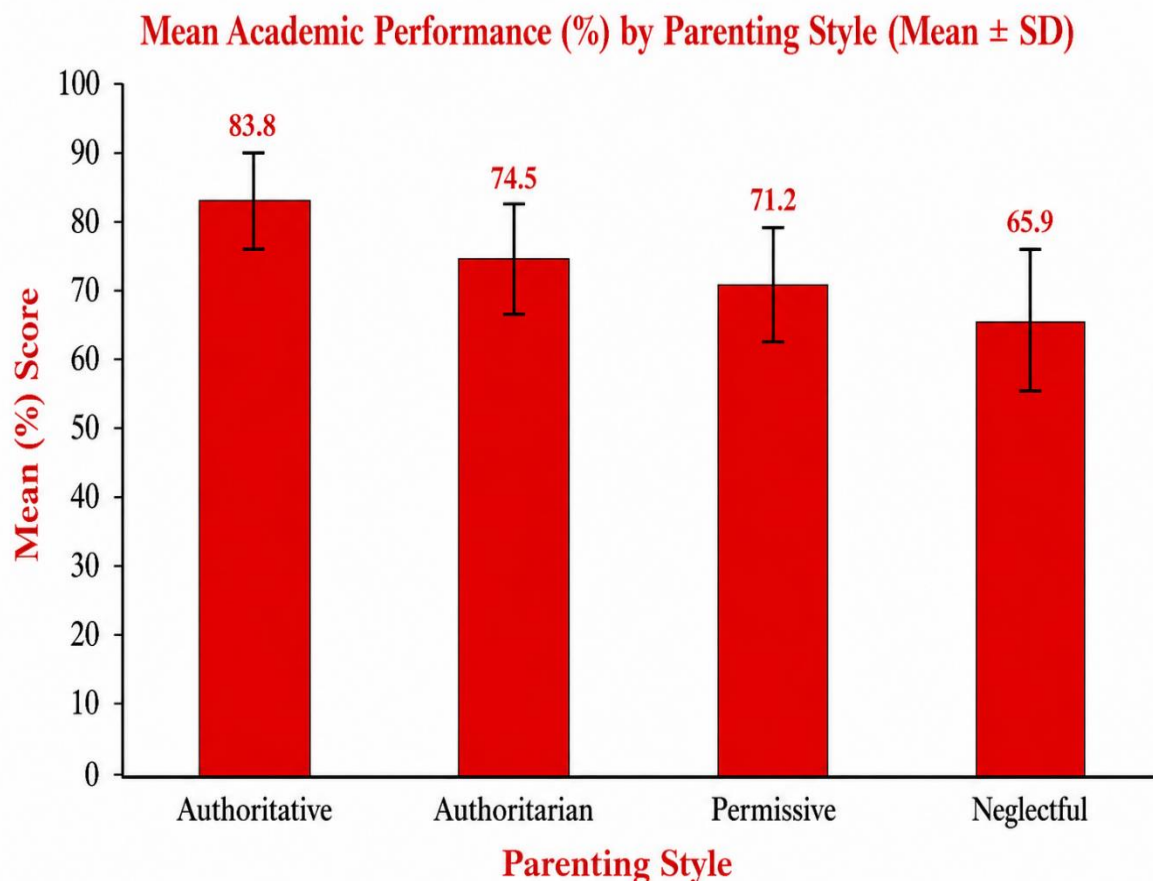


Figure 3. Academic Performance under Different Parenting Styles

#### 4.6 Correlation Analysis

Table 4 presents the Pearson correlation analysis examining the relationships among parenting style, self-esteem, and academic performance. The results indicate that parenting style is significantly and positively associated with self-esteem ( $r = 0.63$ ,  $p < 0.001$ ), suggesting that more positive and supportive parenting practices are linked with higher levels of students' self-worth and confidence. Similarly, parenting style also shows a significant positive relationship with academic performance ( $r = 0.58$ ,  $p < 0.001$ ), indicating that students who experience more

favorable parenting environments tend to achieve better academic outcomes. The strongest relationship is observed between self-esteem and academic performance ( $r = 0.69$ ,  $p < 0.001$ ), highlighting that students with higher self-esteem are more likely to perform well academically. Overall, these findings suggest a coherent pattern in which parenting style not only directly relates to academic achievement but is also strongly connected to students' psychological well-being, which in turn is closely linked to their academic success.

Table 4. Pearson Correlation Matrix

Variable	1	2	3
Parenting Style	1		
Self-Esteem	0.63**	1	
Academic Performance	0.58**	0.69**	1

4.7 Multiple Regression Analysis

Table 5 presents the results of the multiple regression analysis conducted to examine whether parenting style and self-esteem significantly predict academic performance. The overall regression model was statistically significant, indicating a strong combined predictive effect of the independent variables on academic achievement and explaining 55% of the variance in academic performance ( $R^2 = 0.55$ ). This suggests that a substantial proportion of students' academic outcomes can be accounted for by variations in parenting style and self-esteem. Both predictors were found to be significant contributors to academic

performance. Parenting style positively predicted academic achievement ( $B = 4.21, \beta = 0.34, t = 6.19, p < 0.001$ ), indicating that more positive and structured parenting practices are associated with higher academic scores. However, self-esteem emerged as the stronger predictor ( $B = 0.86, \beta = 0.49, t = 7.88, p < 0.001$ ), suggesting that students' psychological self-worth plays a more influential role in determining academic success than parenting style alone. Overall, these findings highlight that both environmental (parenting style) and psychological (self-esteem) factors jointly contribute to students' academic performance, with self-esteem acting as the most powerful predictor in the model.

Table 5. Multiple Regression Predicting Academic Performance

Predictor	B	SE	$\beta$	t	p
Constant	34.62	2.74	—	12.64	<0.001
Parenting Style	4.21	0.68	0.34	6.19	<0.001
Self-Esteem	0.86	0.11	0.49	7.88	<0.001

4.8 Mediation Analysis

A mediation analysis was conducted to examine whether self-esteem explains (mediates) the relationship between parenting style and students' academic performance. The findings indicate a partial mediation effect, meaning that parenting style influences academic performance both directly and indirectly through self-esteem. Specifically, parenting style has a significant direct impact on academic achievement;

however, a substantial portion of this relationship is transmitted through students' self-esteem. This suggests that parenting styles shape children's self-worth and confidence, which in turn contributes meaningfully to their academic outcomes. These results are tabulated in Table 6. Overall, approximately half of the total effect of parenting style on academic performance is mediated by self-esteem, while the remaining effect is direct.

Table 6. Mediation Analysis

Effect Type	Path Description	Interpretation
Total Effect (c)	Parenting Style → Academic Performance	Overall influence combining both direct and indirect effects
Direct Effect (c')	Parenting Style → Academic Performance (controlling for self-esteem)	Independent effect of parenting style on academic achievement
Indirect Effect (a × b)	Parenting Style → Self-Esteem → Academic Performance	Effect transmitted through self-esteem (mediating pathway)

Proportion Mediated	Indirect / Total Effect	Approximately ~50% of the total effect is explained by self-esteem
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**4.9 Effect of Parenting Style on Academic Performance: ANOVA and Post Hoc Analysis**

Table 7 presents the results of the one-way analysis of variance (ANOVA) conducted to examine whether academic performance significantly differs across the four parenting styles: authoritative, authoritarian, permissive, and neglectful. The results indicate a statistically significant effect of parenting style on academic performance, as the between-group variability is substantially higher than the within-group variability ( $F = 31.84, p < 0.001$ ). This confirms that academic achievement is not uniform across parenting categories and is significantly influenced by differences in parenting practices. The sum of squares between groups ( $SS = 7426.84$ ) compared to within groups ( $SS = 23004.19$ ) further demonstrates that a meaningful proportion of variance in academic performance is explained by parenting style.

To identify where these differences specifically lie, a Tukey HSD post hoc test was conducted.

The results revealed that students from authoritative parenting backgrounds significantly outperformed all other groups, including authoritarian (mean difference = 9.30,  $p < 0.001$ ), permissive (mean difference = 12.60,  $p < 0.001$ ), and neglectful parenting (mean difference = 17.90,  $p < 0.001$ ). Additionally, authoritarian parenting showed higher academic performance than permissive (mean difference = 3.30,  $p = 0.042$ ) and neglectful parenting (mean difference = 8.60,  $p < 0.001$ ), while permissive parenting also significantly differed from neglectful parenting (mean difference = 5.30,  $p = 0.008$ ). Overall, these findings clearly demonstrate that authoritative parenting is associated with the highest academic achievement, whereas neglectful parenting is linked to the lowest performance, highlighting the critical role of parenting style in shaping students' academic outcomes.

**Table 7. One-Way ANOVA analysis**

Analysis Type	Comparison Source	SS / Mean Difference	df/p-value	F-value
ANOVA Between Groups	Parenting Styles	SS = 7426.84	df = 3	<b>F = 31.84</b>
ANOVA Within Groups	Error variation	SS = 23004.19	df = 296	—
Total	—	SS = 30431.03	df = 299	—
Post Hoc (Tukey HSD)	Authoritative vs Authoritarian	Mean Diff = 9.30	$p < 0.001$	—
Post Hoc (Tukey HSD)	Authoritative vs Permissive	Mean Diff = 12.60	$p < 0.001$	—
Post Hoc (Tukey HSD)	Authoritative vs Neglectful	Mean Diff = 17.90	$p < 0.001$	—
Post Hoc (Tukey HSD)	Authoritarian vs Permissive	Mean Diff = 3.30	$p = 0.042$	—
Post Hoc (Tukey HSD)	Authoritarian vs Neglectful	Mean Diff = 8.60	$p < 0.001$	—
Post Hoc (Tukey HSD)	Permissive vs Neglectful	Mean Diff = 5.30	$p = 0.008$	—

The findings demonstrate that authoritative parenting is associated with higher self-esteem and superior academic performance. Correlation and regression analyses revealed significant positive relationships among parenting style, self-esteem, and academic achievement. Mediation analysis confirmed that self-esteem partially explains how parenting style affects academic performance. Finally, ANOVA and post hoc comparisons indicated significant differences in academic achievement across parenting styles, with authoritative parenting producing the most favorable educational outcomes. These findings support the proposed conceptual framework and highlight the critical role of parenting practices in fostering both psychological well-being and academic success among school children.

## 5. Discussion

The present study examined the effect of parenting style on self-esteem and academic performance among school children, with a specific focus on how self-esteem mediates this relationship. The findings provide strong empirical support for the conceptual framework proposed in the study and align closely with established psychological theories and prior research.

### 5.1 Influence of Parenting Style on Academic Performance

The results clearly demonstrated that parenting style has a significant effect on academic performance, as confirmed through ANOVA and post hoc analysis. Students raised under authoritative parenting showed the highest academic achievement, whereas those under neglectful parenting exhibited the lowest performance. This gradient pattern (Authoritative > Authoritarian > Permissive > Neglectful) suggests that academic success is strongly dependent on the balance of warmth and control provided in the home environment. These findings are consistent with Baumrind's parenting theory, which emphasizes that authoritative parenting, characterized by high responsiveness and high demandingness, creates an optimal environment for learning (Walker et al., 2008). Such parents provide structure, encouragement, and emotional support, which

collectively enhance students' discipline, motivation, and study habits. In contrast, neglectful parenting fails to provide both emotional and academic guidance, leading to reduced engagement, poor self-regulation, and low achievement. The relatively moderate performance observed in authoritarian and permissive groups reflects partial support in one dimension (control or warmth) but a lack of balance, which limits optimal academic development.

### 5.2 Role of Self-Esteem in Academic Achievement

The findings further revealed a strong positive relationship between self-esteem and academic performance, indicating that students with higher self-worth tend to achieve better academic results. This supports Erikson's psychosocial theory, which emphasizes the development of industry versus inferiority during school-age years. Children who feel competent and valued are more likely to engage actively in academic tasks and persist in the face of challenges. Self-esteem also emerged as the strongest predictor of academic performance in regression analysis, suggesting that psychological factors may be more influential than parenting style alone in determining academic success (Pullmann et al., 2008). This highlights the importance of internal motivational and emotional resources in shaping educational outcomes. Students with high self-esteem are more confident in their abilities, more willing to participate in classroom activities, and more resilient when facing academic difficulties.

### 5.3 Mediation Effect of Self-Esteem

A key contribution of this study is the confirmation of self-esteem as a partial mediator between parenting style and academic performance. The results indicate that approximately half of the effect of parenting style on academic achievement operates indirectly through self-esteem. This finding suggests that parenting practices influence academic performance not only through direct behavioral regulation (such as discipline and study structure) but also through psychological development. Supportive parenting enhances a child's self-worth, which in turn fosters

motivation, persistence, and academic engagement. Conversely, negative parenting environments may lower self-esteem, thereby indirectly reducing academic performance even if cognitive ability remains intact. This mediating mechanism is strongly supported by Bandura's Social Learning Theory, which posits that children internalize behaviors and emotional patterns observed in their environment (Bandura et al., 1977). Similarly, it aligns with Erikson's theory, where positive parental feedback contributes to a sense of competence, while criticism or neglect fosters (Sokol et al., 2009).

#### 5.4 Comparison with Previous Studies

The findings of this study are consistent with a large body of empirical research. Studies by Steinberg (2009) and Lamborn et al. (1991) also reported that authoritative parenting is associated with higher academic achievement and better psychosocial adjustment. Similarly, Dornbusch et al. (1976) found that authoritarian parenting is linked to lower self-confidence and reduced academic performance. The present study extends these findings by demonstrating a clear mediating pathway through self-esteem, thereby offering a more comprehensive explanation of how parenting styles translate into academic outcomes. This adds depth to previous research, which has often focused on direct relationships without fully exploring psychological mechanisms.

#### 5.5 Interpretation of Key Findings

Overall, the findings of the study lead to three key conclusions. First, parenting style plays a significant role in shaping academic outcomes, with authoritative parenting consistently producing the most favorable results compared to authoritarian, permissive, and neglectful styles. Second, self-esteem emerges as a central psychological factor that strongly influences academic success, highlighting its importance in students' motivation, confidence, and learning behavior. Third, the relationship between parenting style and academic performance is both direct and indirect, as self-esteem partially mediates this association by transmitting the positive or negative effects of parenting practices

onto academic achievement. Collectively, these findings emphasize that academic performance is not determined solely by cognitive ability or school environment but is also profoundly shaped by family dynamics and psychological development processes, which are aligned with previous work (Clark, et al., 1984).

#### 5.6 Educational and Practical Implications

The study has important implications for parents, educators, and policymakers. First, it emphasizes the need to promote authoritative parenting practices, as they provide the most balanced environment for children's academic and emotional development. Parenting programs and family counseling interventions can help parents adopt more supportive and structured approaches. Second, schools should focus on enhancing students' self-esteem through supportive classroom environments, positive teacher-student relationships, and encouragement-based teaching strategies. Strengthening self-esteem can significantly improve academic engagement and resilience. Finally, policymakers should consider integrating parenting education programs into school systems, especially in communities where neglectful or inconsistent parenting practices are more prevalent.

#### 6. Conclusion

The present study examined the effect of parenting style on self-esteem and academic performance among school children, with a specific focus on the mediating role of self-esteem. The findings clearly demonstrate that parenting style is a significant determinant of both psychological well-being and academic achievement. Among the four parenting styles, authoritative parenting emerged as the most effective, associated with the highest levels of self-esteem and academic performance. In contrast, neglectful parenting was linked to the poorest outcomes, indicating the adverse effects of low parental involvement and emotional support. The results further confirmed that self-esteem plays a crucial mediating role in the relationship between parenting style and academic performance. Children raised in supportive and structured environments tend to develop higher self-esteem, which in turn

enhances their motivation, confidence, and academic engagement. Regression and correlation analyses supported these relationships, showing that both parenting style and self-esteem significantly predict academic performance, with self-esteem emerging as the stronger predictor. Additionally, ANOVA results confirmed significant differences in academic achievement across parenting styles. Overall, the study concludes that academic success is not determined solely by cognitive ability but is strongly influenced by parenting practices and psychological factors. A balanced parenting approach that combines warmth, guidance, and appropriate control is most effective in promoting both self-esteem and academic success in school children.

### 7. Limitations of the Study

Despite its significant findings, the present study has several limitations that should be considered when interpreting the results. The study employed a cross-sectional design, which restricts the ability to draw causal inferences among parenting style, self-esteem, and academic performance, and longitudinal research would be more appropriate to examine these relationships over time. In addition, the reliance on self-reported measures for key variables such as parenting style and academic performance may introduce response bias, including social desirability and inaccurate reporting. The sample was also limited to school children aged 10–16 years from Pakistan, which may reduce the generalizability of the findings to other age groups, cultural contexts, and educational systems. Although important variables such as socio-economic status, gender, and school type were controlled, other potential confounding factors—such as intelligence, teacher quality, peer influence, and school environment—were not included and may have influenced academic outcomes. Furthermore, the study focused solely on self-esteem as a mediating variable, while other relevant psychological factors like motivation, emotional intelligence, and anxiety were not examined. Finally, the exclusive use of a quantitative approach limits a deeper understanding of students' lived experiences, suggesting that future studies incorporating qualitative methods

could provide more comprehensive insights into the influence of parenting styles on child development.

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### Author Contributions

Noor-ul-Ain and Saira Saeed contributed equally to the conception, design, and execution of this study. Noor-ul-Ain<sup>1</sup> was primarily responsible for data collection, literature review, and drafting the initial manuscript. Asad Ullah supervised the overall research process, contributed to the study design, performed statistical analysis, and critically revised the manuscript for important intellectual content. Saira Saeed and Asad Ullah assisted in data organization, interpretation of results, and manuscript formatting. All authors reviewed and approved the final version of the manuscript and agree to be accountable for all aspects of the work.

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