



INTERNATIONAL JOURNAL OF TRENDS IN EMERGING RESEARCH AND DEVELOPMENT

INTERNATIONAL JOURNAL OF TRENDS IN EMERGING RESEARCH AND DEVELOPMENT

Volume 4; Issue 1; 2026; Page No. 146-149

Received: 15-10-2025
Accepted: 22-11-2025
Published: 13-01-2026

Impact of Parent–Child Relationship on Academic Achievement Through the Mediating Role of Anxiety Among Adolescent Students

¹Piashi Das and ²Dr. Upendra Nath Tiwari

¹Research Scholar, William Carey University, Shillong, Meghalaya, India

²Department of Education, William Carey University, Shillong, Meghalaya, India

DOI: <https://doi.org/10.5281/zenodo.21108091>

Corresponding Author: Piashi Das

Abstract

Adolescence is a critical developmental period characterized by significant psychological, emotional, and academic transitions. During this stage, the quality of parent–child relationships plays a vital role in shaping adolescents' emotional well-being, self-esteem, and academic success. Simultaneously, academic anxiety has emerged as one of the most influential psychological factors affecting educational achievement. While positive parent–child relationships can foster confidence, motivation, and emotional stability, poor communication and weak emotional attachment may increase anxiety and hinder academic performance. The present study investigates the impact of parent–child relationship on academic achievement through the mediating role of academic anxiety among adolescent students. The study further compares these relationships across rural and urban settings. Data were collected from 500 adolescent students enrolled in secondary and higher secondary schools. Statistical analyses including descriptive statistics, correlation analysis, independent sample t-tests, ANOVA, multiple regression, and mediation analysis based on the Baron and Kenny framework were employed. The findings reveal that parent–child relationship significantly influences academic achievement both directly and indirectly through academic anxiety. Strong parental attachment, emotional support, and effective communication reduce anxiety levels and contribute positively to educational achievement. Academic anxiety was found to partially mediate the relationship between parent–child relationship and academic performance. Urban students reported stronger parent–child relationships and lower anxiety levels than rural students. The study concludes that enhancing family communication and addressing anxiety-related issues can substantially improve adolescents' educational outcomes and psychological well-being.

Keywords: Parent–Child Relationship, Academic Anxiety, Academic Achievement, Adolescents, Mediation Analysis, Psychological Well-being, Educational Performance

1. Introduction

Education plays a fundamental role in human development and serves as a key determinant of personal, social, and economic progress. Academic achievement, often measured through examination scores and educational performance indicators, is influenced by a variety of psychological, social, and environmental factors. Among these factors, the parent–child relationship has consistently been identified as one of the most significant influences on adolescent development.

The family is the primary social institution where children

acquire emotional security, social skills, values, and learning behaviors. A healthy parent–child relationship characterized by trust, emotional warmth, communication, and support contributes positively to cognitive development and academic success. Adolescents who experience supportive parental relationships are more likely to exhibit confidence, resilience, and academic motivation.

Conversely, strained family relationships may create emotional distress, insecurity, and anxiety. Academic anxiety refers to feelings of tension, nervousness, fear, and worry associated with educational activities, examinations,

and academic expectations. Excessive anxiety can impair concentration, memory retention, problem-solving abilities, and classroom engagement, ultimately affecting academic achievement.

Recent educational psychology research suggests that anxiety may act as a mediating mechanism linking family relationships to educational outcomes. Adolescents who receive emotional support from parents tend to experience lower levels of anxiety, which in turn enhances their academic performance. Understanding this mediating process is essential for developing effective interventions aimed at improving both psychological well-being and educational achievement.

The present study explores how parent–child relationships influence academic achievement directly and indirectly

through academic anxiety among adolescent students from rural and urban backgrounds.

2. Objectives of the Study

1. To assess the quality of parent–child relationships among adolescents.
2. To examine the relationship between parent–child relationship and academic anxiety.
3. To investigate the mediating effect of anxiety between parent–child relationship and educational achievement.
4. To compare these relationships among rural and urban students.

3. Conceptual Framework

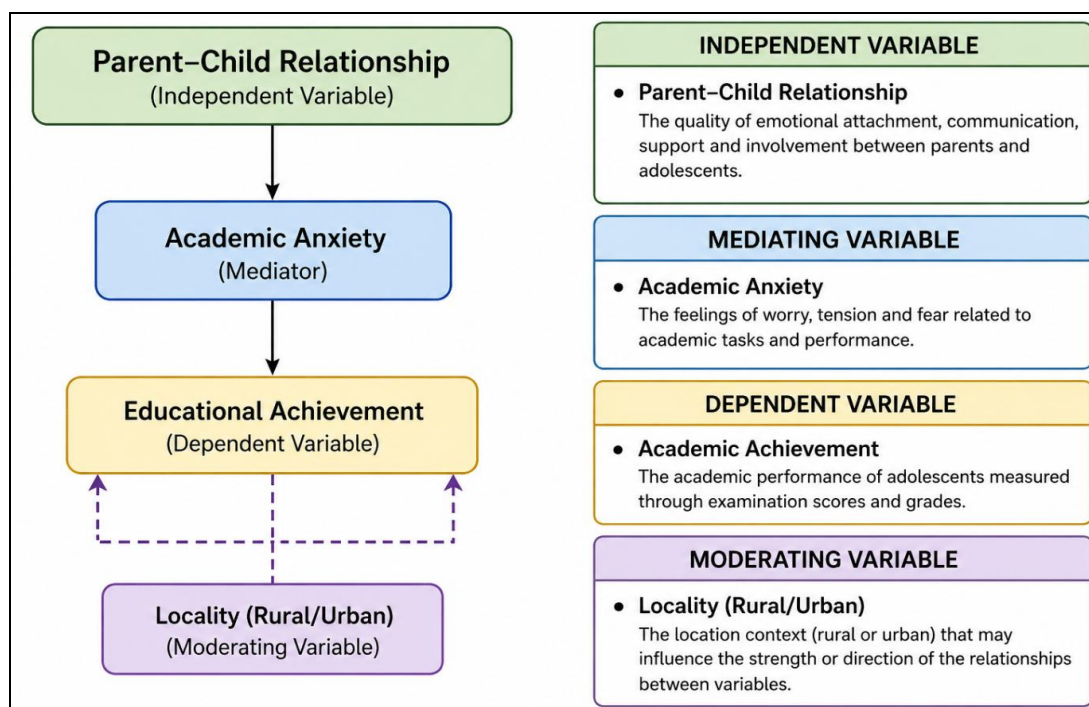


Fig 1: Conceptual Framework

The conceptual framework illustrates the relationship between Parent–Child Relationship, Academic Anxiety, and Educational Achievement among adolescent students, while considering the influence of Locality (Rural/Urban) as a moderating variable.

The framework proposes that the Parent–Child Relationship serves as the independent variable and directly influences students' educational outcomes. A positive parent–child relationship characterized by emotional attachment, effective communication, trust, parental involvement, and emotional support contributes to the healthy psychological development of adolescents. Students who receive consistent parental encouragement and guidance are more likely to develop confidence, motivation, and positive attitudes toward learning.

The model further identifies Academic Anxiety as a mediating variable. Academic anxiety refers to feelings of worry, tension, nervousness, and fear associated with academic tasks, examinations, and educational expectations. The framework assumes that the quality of the parent–child relationship influences the level of anxiety experienced by

students. Supportive and nurturing parental relationships help reduce anxiety levels, whereas conflictual or distant relationships may increase psychological stress and academic anxiety.

Educational Achievement is considered the dependent variable and represents students' academic performance measured through examination scores, grades, and overall scholastic success. The framework suggests that academic achievement is influenced both directly by parent–child relationship and indirectly through academic anxiety. Students experiencing lower levels of anxiety are expected to perform better academically because they can concentrate more effectively, manage academic challenges, and participate actively in learning activities.

The framework also incorporates Locality (Rural/Urban) as a moderating variable. Locality may affect the strength and direction of the relationships among parent–child relationship, academic anxiety, and educational achievement. Urban students generally have greater access to educational resources, counseling facilities, parental educational support, and technological infrastructure, which

may strengthen positive educational outcomes. In contrast, rural students may face additional challenges such as limited educational facilities, fewer academic support services, and socio-economic constraints, which can influence both anxiety levels and academic performance.

Overall, the framework suggests that a strong and supportive parent-child relationship enhances educational achievement by reducing academic anxiety. At the same time, the magnitude of these relationships may vary according to students' locality. Thus, academic anxiety functions as a psychological mechanism through which family relationships affect educational success, while rural-urban context influences how strongly these relationships operate.

4. Research Methodology

The study employed a descriptive and analytical research design. A total sample of 500 adolescent students was selected using stratified random sampling from rural and urban secondary schools.

Table 1: Sample Profile

Category	Frequency
Rural Students	250
Urban Students	250
Male Students	260
Female Students	240

Instruments

1. Parent-Child Relationship Scale
2. Academic Anxiety Scale
3. Academic Achievement Records

Statistical Techniques

- Descriptive Statistics
- Independent Sample t-Test
- Correlation Analysis
- ANOVA
- Multiple Regression Analysis
- Mediation Analysis (Baron & Kenny Method)

5. Data Analysis

Table 2: Descriptive Statistics

Variable	Mean	SD
Parent-Child Relationship	3.96	0.66
Academic Anxiety	3.41	0.74
Academic Achievement	75.28	11.14

The data indicate relatively positive parent-child relationships and moderate levels of academic anxiety. The average academic achievement score reflects satisfactory educational performance among respondents.

Table 3: Parent-Child Relationship Dimensions

Dimension	Mean
Emotional Attachment	4.12
Communication	3.88
Emotional Support	4.05
Trust	4.01
Academic Involvement	3.74

Parent-child relationships were assessed through dimensions such as emotional attachment, communication quality, trust, support, and parental involvement. The findings suggest that emotional attachment and support represent the strongest aspects of parent-child relationships. Academic involvement received comparatively lower scores, indicating opportunities for greater parental engagement in educational activities.

Table 4: Rural-Urban Comparison

Variable	Rural Mean	Urban Mean	t-value	p-value
Parent-Child Relationship	3.79	4.13	5.74	0.000
Academic Anxiety	3.61	3.21	5.28	0.000
Academic Achievement	72.94	77.62	4.96	0.000

Urban students reported stronger parent-child relationships and higher academic achievement than rural students. Rural students exhibited significantly higher anxiety levels.

Table 5: Correlation Matrix

Variable	PCR	Anxiety	Achievement
Parent-Child Relationship	1.000	-0.638**	0.712**
Academic Anxiety	-0.638**	1.000	-0.653**
Academic Achievement	0.712**	-0.653**	1.000

$p < 0.01$

The results indicate a strong positive relationship between parent-child relationship and academic achievement. Academic anxiety is negatively associated with both parent-child relationship and academic achievement.

Table 6: Academic achievement across parent-child relationship levels

Relationship Quality	Mean Achievement
Low	65.84
Moderate	74.12
High	83.48

ANOVA Results

Source	F-value	p-value
Between Groups	34.27	0.000

The significant ANOVA result demonstrates that students experiencing stronger parent-child relationships achieve substantially higher academic scores.

Dependent Variable: Academic Achievement

Table 7: Predictors of Academic Achievement

Predictor	Beta	t-value	p-value
Parent-Child Relationship	0.483	11.24	0.000
Academic Anxiety	-0.376	-8.81	0.000
Locality	0.188	4.32	0.000

Model Summary

Statistic	Value
R	0.808
R ²	0.653
Adjusted R ²	0.649
F-value	310.84
p-value	0.000

The regression model explains 65.3% of the variance in academic achievement. Parent-child relationship emerged as the strongest predictor.

6. Discussion

The results provide strong evidence that parent-child relationship significantly influences adolescents' academic achievement. Emotional attachment, trust, communication, and parental support create a positive environment that encourages learning and educational engagement. Adolescents who perceive strong parental support demonstrate higher motivation, confidence, and educational aspirations.

Academic anxiety emerged as a significant negative predictor of educational performance. Students experiencing higher anxiety reported lower academic achievement due to difficulties in concentration, examination performance, and classroom participation. Anxiety acts as a psychological barrier that undermines learning effectiveness.

The mediation analysis reveals that anxiety serves as an important mechanism through which parent-child relationships affect educational outcomes. Supportive parental relationships reduce anxiety, thereby enhancing academic achievement. This finding aligns with family systems theory and attachment theory, which emphasize the role of secure family relationships in promoting psychological adjustment.

The rural-urban comparison highlights educational inequalities associated with locality. Urban students benefit from stronger parental educational involvement, greater access to educational resources, and lower anxiety levels. Rural students face additional academic and environmental challenges that contribute to increased anxiety and lower achievement.

7. Conclusion

The study concludes that parent-child relationship is a crucial determinant of academic achievement among adolescent students. Strong emotional attachment, effective communication, and parental support contribute positively to educational success. Academic anxiety negatively affects achievement and partially mediates the relationship between parent-child relationship and academic performance. Students with supportive family environments experience lower anxiety levels and achieve better academic outcomes. The findings further indicate significant rural-urban differences, with urban students demonstrating more favorable educational and psychological profiles. The study highlights the importance of integrating family-centered approaches and psychological support interventions into educational policies and practices.

8. References

1. Ainsworth MDS. Attachments beyond infancy. *American Psychologist*. 1989;44(4):709-716.
2. Bandura A. *Self-efficacy: The Exercise of Control*. New York: W.H. Freeman; c1997.
3. Baron RM, Kenny DA. The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*. 1986;51(6):1173-1182.
4. Baumrind D. Effective parenting during adolescence. *Journal of Family Psychology*. 1991;5(1):11-36.
5. Eccles JS. Families, schools, and achievement motivation. *Journal of Educational Psychology*. 2007;99(4):673-687.
6. Field A. *Discovering Statistics Using SPSS*. 5th ed. London: Sage Publications; c2018.
7. Grolnick WS, Ryan RM. Parent styles associated with self-regulation. *Journal of Educational Psychology*. 1989;81(2):143-154.
8. Hair JF, Black WC, Babin BJ, Anderson RE. *Multivariate Data Analysis*. 8th ed. Harlow: Pearson; c2019.
9. Kaur J. Academic anxiety and educational achievement among adolescents. *Indian Journal of Educational Research*. 2020;39(2):145-158.
10. Maccoby EE. Historical overview of socialization research. *Child Development*. 2007;78(1):3-15.
11. Mishra R, Singh P. Parent-child relationship and academic performance. *International Journal of Educational Studies*. 2021;13(4):211-225.
12. Rana RA, Mahmood N. Relationship between test anxiety and achievement. *Bulletin of Education and Research*. 2010;32(2):63-74.
13. Seginer R. Parents' educational involvement and adolescents' outcomes. *Educational Psychology Review*. 2006;18(1):1-31.
14. Spielberger CD. *State-Trait Anxiety Inventory*. Menlo Park (CA): Mind Garden Inc.; c2013.
15. UNESCO. *Reimagining Our Futures Together: A New Social Contract for Education*. Paris: UNESCO; c2021.
16. World Bank. *World Development Report 2020: Learning to Realize Education's Promise*. Washington (DC): World Bank; 2020.
17. Yusuf M. Family support and adolescent academic adjustment. *Journal of Educational Psychology Research*. 2022;18(3):255-271.

Creative Commons (CC) License

This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY 4.0) license. This license permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.