



Educational Achievement, Parent–Child Relationship, And Academic Anxiety Among Rural and Urban Adolescents: A Comparative Analysis

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Abstract

Academic achievement during adolescence is influenced by multiple psychological, social, and environmental factors. Among these, parent–child relationship and academic anxiety play a critical role in shaping students' educational outcomes. A positive parent–child relationship fosters emotional security, self-confidence, and academic motivation, whereas poor family interactions may contribute to stress, anxiety, and reduced academic performance. Similarly, academic anxiety has been recognized as a major psychological barrier that negatively affects concentration, learning efficiency, examination performance, and overall educational achievement. The present study investigates educational achievement, parent–child relationship quality, and academic anxiety among rural and urban adolescent students. The study further examines gender differences and explores the relationships among these variables. A descriptive survey design was employed, and data were collected from 500 adolescent students studying in secondary and higher secondary schools. Statistical techniques such as descriptive statistics, correlation analysis, t-tests, ANOVA, and multiple regression analysis were used for data interpretation. The findings reveal that urban students exhibit higher academic achievement and better parent–child relationships compared to rural students, whereas rural students report higher academic anxiety. Female students demonstrate slightly higher academic achievement but also higher anxiety levels than male students. Parent–child relationship is positively associated with academic achievement, while academic anxiety shows a significant negative relationship with educational performance. The study concludes that supportive family environments and effective anxiety-management interventions are essential for improving adolescents' academic outcomes.

Keywords: Academic Achievement, Parent–Child Relationship, Academic Anxiety, Adolescents, Rural Students, Urban Students, Educational Performance

1. Introduction

Education is one of the most important determinants of individual growth and societal development. Academic achievement serves as a key indicator of educational success and reflects students' ability to acquire knowledge, develop skills, and achieve learning objectives. However, educational performance is influenced not only by intellectual ability but also by psychological, social, and environmental factors.

Among the various determinants of academic achievement, parent–child relationship occupies a central position. The family represents the primary socializing institution where children develop emotional security, communication skills, values, and attitudes toward learning. Adolescents who experience supportive and nurturing relationships with their parents generally exhibit greater academic motivation, self-

confidence, and educational aspirations. Conversely, conflictual or distant parent–child relationships may contribute to emotional distress and poor academic performance.

Academic anxiety is another significant factor affecting adolescent learning. Academic anxiety refers to feelings of tension, worry, nervousness, and fear associated with educational tasks, examinations, and academic expectations. Excessive anxiety interferes with concentration, memory retention, problem-solving abilities, and classroom participation, ultimately reducing educational achievement. The educational experiences of adolescents vary significantly across rural and urban settings. Urban students often benefit from better educational infrastructure, parental educational support, technological resources, and academic guidance. Rural students may face challenges related to

limited educational facilities, lower socio-economic status, and restricted access to academic support services. Gender differences also influence educational experiences, as boys and girls may experience different parental expectations, social pressures, and anxiety levels.

The present study seeks to examine the relationship between parent–child relationship, academic anxiety, and educational achievement among rural and urban adolescents.

2. Objectives of the Study

1. To compare academic achievement among rural and urban adolescent students.
2. To examine the relationship between parent–child relationship and academic achievement.
3. To investigate the influence of academic anxiety on students' educational performance.
4. To analyze rural–urban differences in parent–child relationships and anxiety levels.

3. Research Methodology

The study employed a descriptive survey research design. A sample of 500 adolescent students was selected from government and private secondary schools using stratified random sampling.

Table 1: Sample Distribution

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

Data were collected using standardized scales measuring parent–child relationship and academic anxiety. Academic achievement was assessed through students' annual examination scores.

3.1 Statistical techniques included

- Mean and Standard Deviation
- Independent Sample t-Test
- Pearson Correlation
- One-Way ANOVA
- Multiple Regression Analysis

4. Data Analysis

Table 2: Mean Scores of Major Variables

Variable	Mean	SD
Academic Achievement	74.62	10.85
Parent–Child Relationship	3.91	0.68
Academic Anxiety	3.44	0.72

The results indicate a relatively high level of academic achievement and positive parent–child relationships among respondents. Academic anxiety was found at a moderate level.

Table 3: Rural and Urban Differences

Variable	Rural Mean	Urban Mean	t-value	p-value
Academic Achievement	71.84	77.40	5.92	0.000
Parent–Child Relationship	3.72	4.10	6.14	0.000
Academic Anxiety	3.62	3.26	5.47	0.000

The results reveal statistically significant differences between rural and urban students. Urban students reported better parent–child relationships and higher academic achievement, while rural students exhibited significantly higher academic anxiety.

Table 4: Gender-Based Comparison

Variable	Male Mean	Female Mean	t-value	p-value
Academic Achievement	73.25	76.10	2.89	0.004
Parent–Child Relationship	3.85	3.98	1.95	0.052
Academic Anxiety	3.31	3.58	3.76	0.000

Female students demonstrated higher academic achievement than male students. However, females also reported significantly higher academic anxiety.

Table 5: Correlation Matrix

Variable	Achievement	Parent–Child Relationship	Academic Anxiety
Achievement	1.000	0.684**	-0.592**
Parent–Child Relationship	0.684**	1.000	-0.528**
Academic Anxiety	-0.592**	-0.528**	1.000

$p < 0.01$

The findings indicate a strong positive relationship between parent–child relationship and academic achievement. Academic anxiety shows a significant negative relationship with educational performance.

Table 6: Academic Achievement by Parent–Child Relationship Levels

Group	Mean Achievement
Low Parent–Child Relationship	66.42
Moderate Parent–Child Relationship	73.81
High Parent–Child Relationship	81.94

ANOVA Results

Source	F-value	p-value
Between Groups	28.76	0.000

The ANOVA results indicate significant differences in academic achievement across different levels of parent–child relationship quality. Students with stronger parent–child relationships achieved substantially higher academic scores.

Table 7: Predictors of Academic Achievement Dependent Variable: Academic Achievement

Predictor	Beta	t-value	p-value
Parent–Child Relationship	0.521	12.48	0.000
Academic Anxiety	-0.381	-8.74	0.000
Locality (Urban)	0.214	4.63	0.000

Model Summary

Statistic	Value
R	0.791
R ²	0.626
Adjusted R ²	0.622
F-value	276.54
p-value	0.000

The regression model explains 62.6% of the variance in academic achievement. Parent-child relationship emerged as the strongest predictor, followed by academic anxiety and locality.

5. Discussion

The findings indicate that parent-child relationship plays a critical role in adolescent educational outcomes. Students who reported warm, supportive, and communicative relationships with their parents demonstrated significantly higher academic achievement. Positive parental involvement appears to strengthen motivation, self-esteem, and study habits.

Academic anxiety was found to be a major negative predictor of educational performance. Students experiencing high levels of anxiety reported difficulties in concentration, examination performance, and classroom participation. Excessive anxiety can interfere with cognitive functioning and learning effectiveness.

Urban students exhibited higher educational achievement and better parent-child relationships than rural students. These differences may be attributed to greater parental education, better educational infrastructure, and increased access to learning resources in urban areas.

Female students demonstrated higher academic achievement but also experienced greater anxiety. This may reflect higher academic expectations, increased performance pressure, and stronger achievement orientation among female adolescents. The results support ecological and family systems theories, which emphasize the importance of family relationships in shaping adolescent development and educational success.

6. Conclusion

The study concludes that educational achievement among adolescents is significantly influenced by parent-child relationship quality and academic anxiety. Positive family relationships promote academic success by enhancing emotional support, motivation, and educational engagement. Academic anxiety, on the other hand, negatively affects learning and performance.

Urban students generally demonstrate better educational outcomes than rural students, highlighting the importance of educational infrastructure and parental support systems. Gender differences suggest that female students achieve higher academically but are also more vulnerable to anxiety-related challenges.

The findings emphasize the need for interventions that strengthen family communication, promote parental involvement, and provide psychological support for students experiencing academic anxiety.

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