



Family Environment and Child Personality Development: A Statistical Analysis of the Role of Parental Support in Funtua Town, Katsina State, Nigeria

Ibrahim Abubakar Sadiq^{1*}, Jibril Yahaya Kajuru¹, Yahaya Zakari¹, Abubakar Usman¹, Sani Ibrahim Doguwa¹, and Sani Usman Bello¹ and Ramatu Salihu²

¹Department of Statistics, Ahmadu Bello University, Zaria, Nigeria

¹Department of Statistics, Kaduna State University, Nigeria

*Correspondence: isabubakar@abu.du.ng, abubakarsadiq463@gmail.com

Abstract

The family environment plays a fundamental role in shaping children's personality development, with parental support serving as a key determinant of emotional, social, and behavioural well-being. However, children from unstable family environments or broken homes often experience reduced parental support, which may adversely affect their overall personality development. This study investigates the effects of parental support on children's personality development as an indicator of family stability among adolescents in Funtua Town, Funtua Local Government Area. Specifically, the study examined the influence of parental support on emotional stability, behavioural tendencies, social skills, and self-esteem. Data were collected using a structured questionnaire and analysed using descriptive statistics, Pearson correlation analysis, and simple linear regression. The descriptive results summarised the levels of parental support and personality characteristics among the respondents. Correlation analysis revealed significant positive relationships between parental support and all measured personality outcomes. Regression analysis further demonstrated that parental support was a significant predictor of children's personality development. The strongest effect was observed for self-esteem ($R^2 = 0.279, p < 0.001$), followed by behavioural tendencies ($R^2 = 0.186, p < 0.001$) and social skills ($R^2 = 0.173, p < 0.001$). Although parental support significantly predicted emotional stability, the effect was comparatively weak ($R^2 = 0.021, p = 0.011$). The findings highlight the importance of parental support in promoting healthy personality development among children and adolescents. The study recommends strengthening parental involvement through family support and counselling programmes to improve children's emotional well-being, social adjustment, behavioural outcomes, and self-esteem, particularly among children from broken homes.

Keywords: Family environment; Parental support; Child personality development; Broken homes; Emotional stability; Self-esteem; Regression analysis.

1. Introduction

The family is universally recognised as the primary social institution responsible for nurturing children's physical, emotional, cognitive, and social development (Ofodile *et al.*, 2025; Akintola *et al.*, 2025). It constitutes the earliest environment in which children learn acceptable behaviours, internalise cultural values, develop interpersonal relationships, and acquire the emotional competencies required for successful adjustment in society (Ofodile *et al.*, 2025; Akintola *et al.*, 2025). Within this environment, parents perform indispensable roles by providing affection, protection, supervision, guidance, and material support that collectively shape children's developmental trajectories (Ofodile *et al.*, 2025; Akintola *et al.*, 2025). Consequently, the quality of the family environment has long been regarded as one of the strongest determinants of children's personality development and psychosocial well-being (Ofodile *et al.*, 2025; Akintola *et al.*, 2025). Contemporary developmental research emphasises that family processes, particularly supportive parent-child relationships, exert a greater influence on children's developmental outcomes than family structure alone (Ofodile *et al.*, 2025; Akintola *et al.*, 2025).

Personality development refers to the gradual formation of relatively stable patterns of thoughts, emotions, attitudes, and behaviours that distinguish individuals and influence how they interact with their environment (Anaya & Pérez-Edgar, 2019). It encompasses important psychological characteristics such as emotional stability, behavioural adjustment, self-esteem, confidence, resilience, empathy, and social competence (Anaya & Pérez-Edgar, 2019). These characteristics begin to develop during early childhood and continue to evolve throughout adolescence under the combined influence of biological, psychological, and environmental factors (Anaya & Pérez-Edgar, 2019). Among these influences, the family environment occupies a central position because it provides the first opportunities for emotional attachment, behavioural modelling, communication, and social learning (Anaya & Pérez-Edgar, 2019).

Adolescence represents one of the most sensitive stages of human development. During this period, young people experience rapid physical growth, emotional changes, cognitive maturation, and increasing social responsibilities (Ofodile *et al.*, 2025; Akintola *et al.*, 2025). They begin to establish personal identity, develop independence, and form meaningful relationships beyond the immediate family (Ofodile *et al.*, 2025; Akintola *et al.*, 2025). Despite these developmental transitions, parents remain the most influential source of emotional security and psychological support (Ofodile *et al.*, 2025; Akintola *et al.*, 2025). Adolescents who perceive consistent parental warmth, encouragement, monitoring, and effective communication generally demonstrate higher levels of self-esteem, better emotional regulation, stronger social competence, and fewer behavioural problems than those who experience inadequate parental involvement (Ofodile *et al.*, 2025; Akintola *et al.*, 2025). Conversely, limited parental support has been associated with anxiety, depression, aggression, social withdrawal, low self-worth, and poor educational adjustment (Ofodile *et al.*, 2025; Akintola *et al.*, 2025).

The concept of the family environment extends beyond the physical composition of the household to include the quality of interactions, emotional climate, communication patterns, parenting practices, family cohesion, conflict resolution mechanisms, and the availability of emotional and social support (Ofodile *et al.*, 2025; Adeniyi *et al.*, 2025). A positive family environment is characterised by warmth, mutual respect, trust, effective communication, and active parental involvement in children's lives. Such an environment promotes emotional security, confidence, and adaptive behaviour, thereby facilitating healthy personality development (Ofodile *et al.*, 2025; Adeniyi *et al.*, 2025). Conversely, family environments characterised by persistent conflict, neglect, inconsistent parenting, poor communication, or emotional deprivation may hinder children's psychological adjustment and increase their vulnerability to behavioural and emotional problems (Ofodile *et al.*, 2025; Adeniyi *et al.*, 2025). Recent evidence from Nigeria indicates that supportive family environments are associated with improved adolescent self-esteem and healthier psychosocial outcomes (Ofodile *et al.*, 2025; Adeniyi *et al.*, 2025).

Among the various dimensions of the family environment, parental support has consistently emerged as one of the most important predictors of child and adolescent development (Guo *et al.*, 2025; Umar *et al.*, 2025). Parental support refers to the emotional, psychological, educational, and practical assistance that parents provide to facilitate their children's overall growth and well-being (Guo *et al.*, 2025; Umar *et al.*, 2025). It encompasses expressions of affection, acceptance, encouragement, supervision, guidance, responsiveness, and involvement in children's educational and social activities (Guo *et al.*, 2025; Umar *et al.*, 2025). Supportive parenting enables children to develop positive self-perceptions, effective coping strategies, resilience, and constructive interpersonal relationships (Guo *et al.*, 2025; Umar *et al.*, 2025). In contrast, inadequate parental support may reduce children's confidence, weaken emotional regulation, and contribute to maladaptive behaviours that persist into adulthood (Guo *et al.*, 2025; Umar *et al.*, 2025). Global and Nigerian studies consistently demonstrate that perceived family support is positively associated with self-esteem, psychological well-being, and academic and social adjustment among adolescents (Guo *et al.*, 2025; Umar *et al.*, 2025).

Although parental support is beneficial across different family settings, it may be compromised by circumstances such as marital conflict, separation, divorce, death of a parent, prolonged parental absence, economic hardship, or other forms of family instability (Ofodile *et al.*, 2025; Adeniyi *et al.*, 2025). These circumstances can reduce the quantity or quality of parental involvement available to children (Ofodile *et al.*, 2025; Adeniyi *et al.*, 2025). However, contemporary evidence suggests that family structure alone does not determine children's developmental outcomes; rather, the quality of parenting and the level of support children receive remain the more critical determinants of healthy psychological development (Ofodile *et al.*, 2025; Adeniyi *et al.*, 2025). Consequently, children from broken homes may still achieve favourable developmental outcomes when they receive adequate emotional support from parents or other caregivers, whereas children living in two-parent households may experience adverse outcomes if parental relationships are characterised by conflict, neglect, or inadequate involvement (Ofodile *et al.*, 2025; Adeniyi *et al.*, 2025).

The family environment plays a fundamental role in shaping children's emotional, behavioural, social, and psychological development. Through parental care, guidance, supervision, and emotional support, children develop the personal and social competencies necessary for healthy personality development. However, recent socioeconomic changes, increasing marital instability, economic hardship, migration, and changing family structures have altered traditional parenting practices, thereby affecting the quality of parental support available to many children.

In Nigeria, concerns have continued to grow regarding the increasing prevalence of behavioural problems, emotional instability, low self-esteem, poor social adjustment, school misconduct, substance abuse, and juvenile delinquency among adolescents. Although these problems have frequently been attributed to broken homes, existing evidence suggests that family structure alone may not adequately explain children's developmental outcomes. Rather, the quality of the family environment, particularly the level of parental support, appears to be a more important determinant of children's personality development.

Several previous studies have examined the influence of broken homes on children's academic performance, behavioural adjustment, and psychological well-being. However, relatively few studies have quantitatively investigated how parental support influences multiple dimensions of personality development, including emotional stability, behavioural tendencies, social skills, and self-esteem, within the same analytical framework. Furthermore, empirical evidence on these relationships remains limited in Funtua Town, Katsina State, despite increasing social concerns regarding adolescent behavioural and emotional adjustment.

The absence of local empirical evidence limits the ability of parents, educators, counsellors, and policymakers to design evidence-based interventions aimed at improving adolescents' psychological well-being. Understanding the extent to which parental support contributes to personality development is therefore essential for developing effective family-based counselling programmes, educational interventions, and social policies that promote healthy child development.

Against this background, this study statistically examines the role of parental support within the family environment in influencing children's personality development among adolescents in Funtua Town, Katsina State. Specifically, the study applies descriptive statistics, Pearson correlation analysis, and regression analysis to provide empirical evidence on the relationships between parental support and selected dimensions of child personality development.

The main aim of this study is to statistically analyse the role of parental support within the family environment on children's personality development among adolescents in Funtua Town, Katsina State, Nigeria. The specific objectives of the study are to: describe the levels of parental support, emotional stability, behavioural tendencies, social skills, and self-esteem among adolescents in the study area; examine the relationships between parental support and emotional stability, behavioural tendencies, social skills, and self-esteem; determine the extent to which parental support predicts emotional stability, behavioural tendencies, social skills, and self-esteem among adolescents; and evaluate the interrelationships among emotional stability, behavioural tendencies, social skills, and self-esteem.

The study seeks to answer the following research questions: what are the levels of parental support, emotional stability, behavioural tendencies, social skills, and self-esteem among adolescents in the study area? What relationships exist between parental support and adolescents' emotional stability, behavioural tendencies, social skills, and self-esteem?; to what extent does parental support predict emotional stability, behavioural tendencies, social skills, and self-esteem among adolescents?; and what relationships exist among emotional stability, behavioural tendencies, social skills, and self-esteem?

The following null hypotheses were tested at the 5% level of significance: H_{01} : there is no significant relationship between parental support and adolescents' emotional stability. H_{02} : there is no significant relationship between parental support and adolescents' behavioural tendencies. H_{03} : there is no significant relationship between parental support and adolescents' social skills. H_{04} : There is no significant relationship between parental support and adolescents' self-esteem. H_{05} : parental support does not significantly predict adolescents' emotional stability, behavioural tendencies, social skills, and self-esteem.

The findings of this study are expected to contribute to the existing body of knowledge on the relationship between the family environment and children's personality development. By providing empirical evidence on the influence of parental support, the study will enhance understanding of the mechanisms through which the family environment shapes adolescents' emotional, behavioural, and social outcomes.

The study will be beneficial to parents by highlighting the importance of consistent emotional support, effective communication, supervision, and involvement in promoting healthy personality development among adolescents. It will also provide useful information for teachers, school counsellors, psychologists, and social workers in identifying adolescents who may require additional emotional and behavioural support.

The findings will assist policymakers and non-governmental organisations in developing family-centred intervention programmes aimed at strengthening parenting practices, improving adolescent mental health, and reducing behavioural problems among young people. Furthermore, the study will provide evidence that can inform the design of community-based counselling programmes and family support initiatives within Funtua Town and similar communities.

From an academic perspective, the study contributes to the growing literature on family environment and adolescent development by employing quantitative statistical techniques, including descriptive statistics, Pearson correlation analysis, and regression analysis, to examine the relationships between parental support and multiple dimensions of personality development. The findings may also serve as a valuable reference for future researchers interested in family studies, developmental psychology, education, public health, and applied statistics.

2. Materials and Methods

2.1. Sample Size Determination

The sample size for this study was determined using the Yamane (1967) sample size determination formula, which provides a simplified approach for estimating an appropriate sample size from a finite population when the population size is known. The formula is suitable for survey research employing simple random sampling and assumes a 95% confidence level with a 5% margin of error. It is expressed as:

$$n = \frac{N}{1 + Ne^2} \quad (1),$$

where n is the required sample size; N is the total population size; and e is the level of precision (sampling error), expressed as a decimal. For this study, the population size ($N = 1,200$) and the margin of error ($e = 0.05$). Substituting these values into equation (1),

$$n = \frac{1200}{1 + 1200(0.05)^2} = \frac{1200}{1 + 1200(0.0025)} = \frac{1200}{1 + 3} = \frac{1200}{4} = 300 \quad (2).$$

The minimum required sample size was therefore 300 respondents. However, to improve the reliability of the study and account for possible non-response, 325 questionnaires were administered.

2.2. Study Design

This study adopted a cross-sectional survey research design to investigate the role of parental support within the family environment on children's personality development among adolescents in Funtua Town, Katsina State, Nigeria.

The target population consisted of 1,200 students of Government College, Pilot Bagari Ward, Funtua Local Government Area, Katsina State. Using a simple random sampling technique, 325 students were selected to participate in the study.

A structured questionnaire was used to collect primary data on parental support, emotional stability, behavioural tendencies, social skills, and self-esteem. Of the 325 questionnaires administered, 311 were correctly completed and returned, representing a response rate of 95.7%. Fourteen (14) questionnaires were excluded from the analysis because they contained incomplete responses or inconsistent answer patterns that rendered them unsuitable for statistical analysis.

2.3. Questionnaire Method of Data Collection

Primary data for this study were collected using a structured questionnaire developed to obtain information on respondents' demographic characteristics and the study variables. The questionnaire comprised items measuring parental support, emotional stability, behavioural tendencies, social skills, and self-esteem.

The questionnaire was administered directly to the selected students using a simple random sampling procedure. Respondents were informed of the purpose of the study and assured that the information provided would be treated with strict confidentiality and used solely for academic purposes. Participation in the study was voluntary.

A total of 325 questionnaires were distributed. After screening the completed questionnaires for completeness and consistency, 311 valid responses were retained for the final statistical analysis, while 14 questionnaires were discarded because of incomplete or inconsistent responses.

2.4. Method of Data Analysis

Data obtained from the respondents were coded, entered, cleaned, and analysed using the R Statistical Software (Version 4.6.0).

The statistical techniques employed in this study were as follows:

2.4.1. Descriptive Statistics

Descriptive statistics, including frequencies, percentages, means, and standard deviations, were used to summarise the demographic characteristics of the respondents and describe the levels of parental support, emotional stability, behavioural tendencies, social skills, and self-esteem.

2.4.2. Pearson Correlation Analysis

Pearson's Product-Moment Correlation Coefficient was used to examine the strength and direction of the relationships between parental support and the dimensions of child personality development, namely emotional stability, behavioural tendencies, social skills, and self-esteem. The Pearson correlation coefficient is given by:

$$r = \frac{\sum_{i=1}^n (x_i - \bar{x})(y_i - \bar{y})}{\sqrt{\sum_{i=1}^n (x_i - \bar{x})^2 \sum_{i=1}^n (y_i - \bar{y})^2}} \quad (3),$$

where r is the Pearson correlation coefficient; x_i and y_i are the observed values of the two variables; and $\bar{x}$ and $\bar{y}$ are their respective sample means.

The coefficient ranges from -1 to +1, where values close to +1 indicate a strong positive relationship, values close to -1 indicate a strong negative relationship, and values near zero indicate little or no linear relationship.

2.4.3. Linear Regression Analysis

Simple linear regression analysis was employed to determine the extent to which parental support predicts each dimension of child personality development. The regression model is expressed as:

$$Y_i = \beta_0 + \beta_1 X_i + \varepsilon_i \quad (4)$$

where Y_i is the personality outcome (emotional stability, behavioural tendencies, social skills, or self-esteem); X_i is the parental support score; β_0 is the intercept; β_1 is the regression coefficient representing the effect of parental support; and ε_i is the random error term.

The coefficient of determination (R^2) was used to assess the proportion of variation in each personality outcome explained by parental support, while hypothesis testing was conducted at the 5% level of significance ($\alpha = 0.05$).

3. Results and Discussions

The descriptive analysis provides important insights into how adolescents from different family structures perceive parental support and develop personality traits. Table 1 presents the descriptive statistical analysis of the different family structures, perceived parental support, and the development of personality traits.

Table 1. Summary Statistics of Parental Support and Personality Development Variables

Variable	Mean	SD	Median	Range	Skewness	Kurtosis
Parental Support	3.78	1.21	4	1-5	-0.86	-0.35
Emotional Stability	2.88	1.21	3	1-5	0.21	-1.05
Behavioral Problems	3.35	1.05	3	1-5	-0.05	-0.77

Social Skills	3.61	0.97	3.5	1-5	-0.54	-0.08
Self-Esteem	3.76	1.5	5	1-5	-0.79	-0.86

The relatively high mean for parental support ($M = 3.78$) suggests that many respondents still experience moderate to strong involvement from their parents, which aligns with the study's aim of exploring how variations in parental presence influence development. However, the low mean score for emotional stability ($M = 2.88$) indicates that many adolescents struggle with managing emotions, an outcome that may be amplified in broken homes where consistent parental guidance is limited. This supports the objective of assessing the impact of parental separation or absence on emotional adjustment.

Interestingly, while behavioural problems ($M = 3.35$) fall above the midpoint, both social skills ($M = 3.61$) and self-esteem ($M = 3.76$) are relatively strong. This mixed pattern suggests that although adolescents may face internal struggles with emotions and behaviour, they still maintain confidence in their abilities and interact positively with peers when parental support is present. The negative skewness in self-esteem and parental support further confirms that more respondents clustered toward higher scores, reinforcing the notion that parental involvement remains a protective factor. Collectively, these findings highlight the nuanced role of parental support: it strongly fosters social and self-worth outcomes but is less effective in stabilising emotions, thereby aligning with the study's objectives of identifying which aspects of personality are most influenced by family structure and support.

The correlation results presented in Table 2 provide further evidence of the influence of parental support on adolescents' personality outcomes. For H01, parental support was found to be positive and significantly correlated with emotional stability ($r = 0.145$, $p = 0.0105$). Although the correlation is weak, it suggests that adolescents who perceive greater parental involvement tend to have slightly better control over their emotions, confirming that family structure and support play at least a modest role in emotional adjustment.

Table 2. The Correlation Analysis

Hypothesis	Variable Pair	r (Correlation)	p-value
H ₀₁	Parental Support and Emotional Stability	0.145	0.0105
H ₀₂	Parental Support and Behavioural Problems	0.431	< 0.001
H ₀₃	Parental Support and Social Skills	0.415	< 0.001
H ₀₄	Parental Support and Self-Esteem	0.528	< 0.001

For H₀₂ and H₀₃, stronger associations were observed. Parental support was significantly related to behavioural problems ($r = 0.431$, $p < 0.001$) and social skills ($r = 0.415$, $p < 0.001$). These moderate correlations indicate that adolescents with supportive parents are less likely to engage in problematic behaviours and more likely to demonstrate positive social interactions. This aligns with the study objective of assessing behavioural conduct and social development in relation to parental involvement.

Finally, H₀₄ revealed the strongest association: parental support and self-esteem were positively and significantly correlated ($r = 0.528$, $p < 0.001$). This large effect highlights that self-worth is particularly sensitive to the quality of parental care and support. Adolescents who experience consistent encouragement and emotional availability from parents are more likely to develop a confident and positive self-image. Collectively, these findings confirm that all four null hypotheses can be rejected, showing that parental support significantly shapes various aspects of child personality development.

The regression results presented in Table 3 provide more precise estimates of the predictive power of parental support on adolescent personality outcomes. Model 1 revealed that parental

support significantly predicted emotional stability ($\beta = 0.145$, $R^2 = 0.021$, $p = 0.011$). However, the explained variance was very low (2.1%), suggesting that while parental support contributes to emotional regulation, many other factors, such as peer influence, temperament, or environmental stressors, likely play a stronger role.

In Model 2 and Model 3, parental support emerged as a moderate predictor of behavioural problems ($\beta = 0.374$, $R^2 = 0.186$, $p < 0.001$) and social skills ($\beta = 0.334$, $R^2 = 0.173$, $p < 0.001$).

Table 3. The Regression Results

Model	Dependent Variable	β (slope)	R^2	p-value
Model 1	Emotional Stability	0.145	0.021	0.011
Model 2	Behavioral Problems	0.374	0.186	<0.001
Model 3	Social Skills	0.334	0.173	<0.001
Model 4	Self-Esteem	0.655	0.279	<0.001

Together, these findings imply that parental involvement is effective in reducing negative behaviours while promoting positive interpersonal skills, supporting the study objective of assessing the impact of parental absence or separation on behaviour and social development.

The strongest effect was observed in Model 4, where parental support significantly predicted self-esteem ($\beta = 0.655$, $R^2 = 0.279$, $p < 0.001$). Here, nearly 28% of the variance in adolescents' self-esteem was explained by parental support alone, indicating that parental involvement is a critical determinant of self-worth. This aligns with the broader aim of the study by demonstrating that children from more supportive family environments are more resilient and confident compared to those from broken or less supportive homes.

4. Conclusion

This study provides strong empirical evidence that parental support plays a critical role in shaping adolescents' personality outcomes. Adolescents with higher levels of parental support reported stronger self-esteem, fewer behavioural problems, and greater social skills, while also showing modest improvements in emotional stability. The findings validate the theoretical premise that supportive parenting fosters resilience, self-worth, and adaptive social behaviour during adolescence. Importantly, the differential predictive strength across domains highlights that self-esteem is particularly sensitive to parental influence, while emotional stability may depend more heavily on external or individual factors.

The implications of this study include: intervention programs should emphasise strengthening parental support systems to enhance adolescents' self-esteem and reduce behavioural challenges; the findings reinforce attachment and ecological models of child development, demonstrating that parental support operates as a critical contextual factor; and schools and community stakeholders may integrate parental engagement strategies into youth development initiatives.

While the study offers valuable insights, it is limited by reliance on self-reported measures, which may be subject to bias. The cross-sectional design also precludes causal inference. Future research should adopt longitudinal approaches and incorporate demographic moderators (e.g., gender, socioeconomic status) to provide a more nuanced understanding of parental support effects.

References

- Adeniyi, S., Kuku, O. O., Ogunyomi, O., & Demurin, D. A. (2025). Exploring the impact of home environment and digital socialisation on self-efficacy and social adjustment among secondary school adolescents. *Contemporary Educational Research Journal*. Un-Pub.

- Akintola, A. A., Ogungbemi, T. M., Akpunne, B. C., & Ojo, T. E. (2025). Adverse childhood experiences, personality traits and internalising disorder among adolescents in Nigeria. *South African Journal of Psychiatry*, 31, 2423.
- Anaya, B., & Pérez-Edgar, K. (2019). Personality development in the context of individual traits and parenting dynamics. *New ideas in psychology*, 53, 37-46.
- Guo, Q., Huang, Y., Wang, Y., & Yang, B. (2025). Family support more strongly associated with academic performance in collectivist and economically less developed societies. *Personality and Individual Differences*, 240, 113156.
- Ofodile, M. C., Akintayo, S. O., Akinyele, O. A., & Ojo, A. O. (2025). Family environment and inconsistent parenting styles on adolescents' self-esteem among model school students of federal tertiary institutions in Ogun State, Nigeria. *International Journal of Research and Innovation in Social Science (IJRISS)*, 9, 622-638.
- Umar, A. I., Olawumi, A. L., Ogunyele, T. T., Magaji, H. Y., Suleiman, A. K., Grema, B. A., ... & Aliyu, M. H. (2025). Family support and depression among adolescents living with HIV in Northern Nigeria. *Current HIV Research*, 23(1), 58-68.