



TEST ANXIETY AMONG ACADEMICALLY AT-RISK STUDENTS IN AKURE'S RURAL SECONDARY SCHOOLS: THE PREDICTIVE ROLES OF PARENTING STYLES, EMOTIONAL INTELLIGENCE, AND RELIGIOSITY

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Abstract:

Test anxiety is a major psychological challenge among academically at-risk students, especially in rural settings with limited academic and psychosocial resources. This study investigated the prevalence of test anxiety and the predictive influence of parenting styles, emotional intelligence, and religiosity among secondary school students in rural community schools in Akure, Ondo State, Nigeria. A cross-sectional predictive correlational design was adopted, and 300 students (150 males, 150 females) were selected via multistage random sampling from six public secondary schools across Akure North and South Local Government Areas. Standardized instruments—the Parental Authority Questionnaire, Emotional Intelligence Scale, Religious Commitment Inventory, and Sarason Test Anxiety Scale—were used to collect data. Analyses included descriptive statistics, Pearson correlation, independent samples t-test, and multiple regression. Findings revealed that 80% of students experienced moderate to high test anxiety, with females reporting significantly higher levels than males. Test anxiety was negatively correlated with academic performance ($r = -.62, p < .01$). Parenting style, emotional intelligence, and religiosity collectively explained 53.7% of the variance in test anxiety, with parenting style being the strongest predictor, followed by emotional intelligence and religiosity. The study underscores the complex nature of test anxiety and highlights the need for integrated interventions that promote supportive parenting,

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emotional skill development, and culturally relevant coping strategies to enhance academic outcomes among at-risk students in rural communities.

Keywords: test anxiety, academically at-risk students, parenting style, emotional intelligence, religiosity, rural schools

1. Introduction

Test anxiety has become a growing educational and psychological concern among academically at-risk students in rural communities of Akure, Ondo State, Nigeria, with significant implications for academic performance, emotional well-being, and sustained school engagement. Students in these contexts frequently contend with compounded challenges, including limited instructional resources, inadequate academic support, and heightened socioeconomic stressors, which may increase vulnerability to anxiety during evaluative situations (Uwakwe *et al.*, 2021). Despite concerted efforts by schools, teachers, and parents to improve learning outcomes, many academically at-risk students continue to experience debilitating fear, excessive worry, and pronounced physiological stress responses during tests. Such reactions often manifest in impaired concentration, memory disruption, and avoidance behaviours, resulting in persistent underachievement even among students with latent academic potential.

The persistence of test anxiety among academically at-risk learners, despite ongoing educational reforms and intervention programs, highlights a critical gap in understanding its underlying determinants, prevalence, and consequences within rural educational settings. Without a nuanced understanding of the psychosocial and familial factors shaping test anxiety, initiatives aimed at improving academic achievement may remain limited in effectiveness. Consequently, there is a compelling need for focused empirical investigation into the correlates of test anxiety among academically-at-risk students in rural Akure, Ondo State, Nigeria. Empirical evidence from secondary and tertiary institutions in Nigeria indicates that a substantial proportion of students experience moderate to high levels of test anxiety, with adverse effects on study habits, attention, and academic achievement. For example, Ilo and Unachukwu (2020) reported that test anxiety significantly predicted secondary school students' performance in English Language and Mathematics, underscoring the pervasive nature of the phenomenon across core academic subjects. Similarly, Olayiwonuola, Adeyemi and Ogunleye (2025) found that undergraduate students in Southwestern Nigeria exhibited elevated anxiety levels that were strongly associated with diminished academic performance and increased emotional distress. These findings suggest that test anxiety is not only widespread but particularly detrimental for students whose academic trajectories are already compromised.

Within Ondo State, available evidence further demonstrates that test anxiety constitutes a serious challenge for both teachers and learners. Gbore and Osakuade (2021) observed significant anxiety responses among adolescents during mathematics

assessments and advocated for structured school-based interventions such as test-wiseness training and anxiety-reduction programs. Test anxiety is conceptualized not merely as transient apprehension but as a multidimensional psychological and physiological response to evaluative situations. Students experiencing test anxiety commonly report heightened autonomic arousal before and during examinations, accompanied by observable physiological indicators such as restlessness, fidgeting, and muscle tension. Cognitively, test anxiety is characterized by excessive worry, intrusive negative thoughts, and harsh self-evaluation, alongside emotional and somatic symptoms that impair academic functioning.

Studies suggest that test anxiety is influenced by multiple interacting factors, including individual characteristics, family-related variables and school-related factors. Additionally, contextual and psychosocial factors—such as peer influence, fear of failure, prior academic experiences, and cultural or religious beliefs—may further shape students' anxiety levels during examinations. One family-related factor that could relate to test anxiety is parenting style. Parenting style refers to relatively stable patterns of parental attitudes, behaviours, and emotional climate through which parents socialize their children, particularly in relation to responsiveness, control, communication, and expectations (Darling & Steinberg, 1993). These patterns provide a foundational context in which children develop emotional regulation skills, coping strategies, and interpretations of academic demands. Contemporary research continues to rely on the four widely recognized parenting styles—authoritative, authoritarian, permissive, and neglectful—due to their consistent associations with psychological and academic outcomes (Smetana, 2017). Growing empirical evidence links parenting style to test anxiety and related academic anxieties. Authoritative parenting, characterized by warmth, emotional support, and appropriate behavioural control, has been associated with lower levels of test anxiety and better academic adjustment. Studies (Zimmermann, & Li, 2025; Thomas, Cassady, & Finch, 2023). indicate that students raised in authoritative households demonstrate superior emotional regulation and reduced evaluative stress. In contrast, authoritarian parenting, marked by rigid control and low emotional responsiveness, has been associated with heightened test anxiety and fear of failure, as excessive parental pressure increases perceptions of academic threat (Pienyu, Margaret, & D'Souza, 2024; Zhou, Zhang, & Wang, 2022). Similarly, permissive and neglectful parenting styles have been linked to poor academic self-regulation and increased stress due to insufficient guidance and emotional support (Pinquart, 2021; Segrin, Woszidlo, Givertz, Bauer, & Murphy, 2020). Cross-cultural and school-based studies further confirm that parenting style significantly predicts academic anxiety outcomes, including test anxiety, particularly among adolescents in high-stakes educational environments. Research by Putwain, Gallard and Beaumont (2020) and Arslan (2023) demonstrates that supportive parenting practices indirectly reduce test anxiety through enhanced academic self-efficacy and reduced performance pressure. Collectively, these findings highlight parenting style as a key psychosocial factor influencing students' emotional responses to academic evaluation.

Literature suggests that Emotional intelligence (EI) may predict test anxiety. Emotional intelligence is defined as the ability to perceive, understand, regulate, and utilize emotions in oneself and others. It has also been consistently linked to test anxiety. Individuals with higher emotional intelligence are better equipped to manage stress and employ adaptive coping strategies during anxiety-provoking situations such as examinations (Ofole & Busari, 2019; Extremera, Mérida-López, & Sánchez-Gómez, 2024). Empirical studies have shown that students with higher EI report lower levels of test anxiety, whereas those with lower EI are more vulnerable to maladaptive emotional responses (Malik, Shahid & Zahra, 2021). Similar findings have been reported among high school students (Sadeghi, Ghasemi, & Sadeghi, 2022) and university students (Keshavarzi, Karami, & Moradi, 2023), underscoring the protective role of emotional intelligence in academic contexts.

Another factor that has the likelihood of predicting test anxiety is religiosity, according to previous studies. Religiosity, defined as the degree to which individuals internalize and practice religious beliefs and values in daily life, represents another important psychosocial resource (Papaleontiou-Louca, 2024; Koenig, King & Carson, 2012). As a multidimensional construct encompassing beliefs, practices, experiences, and personal meaning, religiosity has been shown to function as a coping mechanism during stressful life events. Recent studies indicate that higher levels of religiosity are associated with lower test anxiety, as religious practices such as prayer and meditation provide emotional comfort, meaning, and perceived social support (Noor, Ahmed, & Ali, 2022; Yıldız, Aydın, & Aksoy, 2021). Moreover, intrinsic religious orientation has been linked to lower anxiety levels compared to extrinsic religiosity, suggesting that deeply internalized faith may foster resilience in academic settings (Dursun, Altintas, & Aytac, 2023; Ghaffari, Rahimi, & Hosseini, 2023).

Given these empirical patterns, it is imperative to examine the predictive influence of parenting style, emotional intelligence, and religiosity in understanding the development and maintenance of test anxiety among academically at-risk students in rural Akure. Identifying these predictors may inform culturally responsive and contextually appropriate interventions aimed at reducing anxiety and promoting academic resilience. The present study is therefore grounded in these empirical realities and seeks to contribute evidence-based insights into managing test anxiety within rural educational settings in Ondo State, Nigeria.

2. Theoretical Framework

This study is anchored on theories explaining how parenting styles, emotional intelligence, and religiosity influence test anxiety among academically at-risk students. Baumrind's Parenting Styles Theory (1966, 1971) posits that authoritative parenting promotes resilience, while authoritarian or neglectful styles may increase anxiety. Salovey and Mayer's Emotional Intelligence Theory (1990) suggests that higher emotional intelligence helps students manage stress and regulate emotions, reducing test

anxiety. Pargament's Theory of Religious Coping (1997) emphasizes that religiosity provides emotional support and coping resources, buffering stress. Integrating these theories, the study examines environmental, personal, and sociocultural predictors of test anxiety in rural Akure schools.

2.1 Purpose of Study

The purpose of this study was to examine the predictive influence of parenting styles, emotional intelligence, and religiosity on test anxiety among academically at-risk students in Akure rural community secondary schools.

Specifically, the study sought to:

- 1) Determine the prevalence of test anxiety among these students.
- 2) Examine gender differences in test anxiety.
- 3) Assess the effect of test anxiety on academic performance.
- 4) Determine the combined contribution of parenting styles, emotional intelligence, and religiosity in predicting test anxiety.
- 5) Evaluate the relative contribution of each independent variable in predicting test anxiety.

2.2 Research Questions

The following research questions guided the study:

- 1) What is the prevalence of test anxiety among academically at-risk students in Akure rural community secondary schools?
- 2) Is there a significant difference in test anxiety between male and female academically at-risk students in Akure rural community secondary schools?
- 3) What is the effect of test anxiety on the academic performance of academically at-risk students in Akure rural community secondary schools?
- 4) To what extent did the independent variables (parenting styles, emotional intelligence, and religiosity) jointly predict test anxiety among academically at-risk students in Akure rural community secondary schools?
- 5) What is the relative contribution of each independent variable (parenting styles, emotional intelligence, and religiosity) in predicting test anxiety among academically at-risk students in Akure rural community secondary schools?

3. Materials and Methods

3.1 Design

A cross-sectional predictive design was adopted for this study. A correlational design is appropriate because the variables already exist and cannot be manipulated ethically or practically in a school setting. The emphasis on predictive influence indicates the intention to determine how well the independent variables (parenting styles, emotional intelligence, religiosity) statistically predict levels of test anxiety. Moreover, a predictive correlational design allows for the use of multiple regression analysis, which aligns

directly with this objective. A cross-sectional approach allows data to be collected at a single point in time, making it cost-effective and practical for rural school settings where prolonged follow-up may be difficult.

3.2 Sampling and Selection Procedure

The study adopted a multistage sampling technique to select 300 students from public secondary schools located in rural communities of Akure North and Akure South Local Government Areas (LGAs) of Ondo State, Nigeria. Akure North and Akure South LGAs were purposively selected because they contain a high concentration of rural communities and public secondary schools relevant to the study's focus on academically at-risk students in rural settings. A comprehensive list of public secondary schools situated in rural communities within the two LGAs was obtained from the Ondo State Ministry of Education. Six rural secondary schools were then selected using a simple random sampling technique. Three schools were drawn from Akure North LGA (Igoba, Oba-Ile, and Aiyede-Ogbese), while three were selected from Akure South LGA (Oda, Aponmu, and Gbogbo/Isikan).

Proportionate sampling was subsequently employed to determine the number of students selected from each school based on school population size, yielding a total sample of 300 students across the six schools. To ensure gender representation, stratified random sampling was applied within each selected school by stratifying students into male and female groups. Equal numbers were randomly selected from each stratum to obtain 150 males and 150 females. Finally, simple random sampling using the balloting method was used to select individual participants from each stratum. Only students who met the inclusion criteria—enrolment in the selected schools, age range of 12–20 years, and identification as academically at risk based on school records—were included. This multistage sampling approach ensured adequate representation across rural communities, school locations, age groups, and gender, thereby enhancing the validity and generalizability of the study findings.

3.3 Measures

Data were collected using standardized instruments measuring parenting styles, emotional intelligence, and religiosity. Parental authority styles were assessed using the Parental Authority Questionnaire (PAQ; Buri, 1991), which was based on Baumrind's parenting typology and measured authoritative, authoritarian, and permissive styles. The PAQ consisted of 30 items rated on a Likert-type scale ranging from strongly disagree to strongly agree, with 10 items per subscale. Each subscale was scored independently, and the highest score indicated the dominant parental authority style. A pilot study yielded a test-retest reliability coefficient of .88, while previous studies reported Cronbach's alpha values ranging from .70 to .88.

Emotional intelligence was measured using the Emotional Intelligence Scale (EIS) developed by Schutte *et al.* (1998). The EIS was grounded in the Salovey and Mayer emotional intelligence model and consisted of 33 items rated on a Likert-type scale.

Negatively worded items were reverse-scored, and a total score was obtained by summing all items, with higher scores indicating higher emotional intelligence. Reported reliability coefficients ranged from .70 to .90, and evidence of construct and criterion-related validity was supported through associations with stress, anxiety, academic performance, and psychological well-being.

Religiosity was assessed using the Religious Commitment Inventory-10 (RCI-10; Worthington *et al.*, 2003). The instrument comprised 10 items rated on a 5-point Likert-type scale and assessed intrapersonal and interpersonal religious commitment. Higher scores indicated higher levels of religiosity. The RCI-10 demonstrated strong psychometric properties, with Cronbach's alpha coefficients ranging from .85 to .93 and test-retest reliability coefficients between .80 and .86. Factor-analytic evidence supported the two-factor structure of the instrument.

Test anxiety was measured using the Sarason Test Anxiety Scale (TAS; Sarason, 1984). The TAS assesses test anxiety as a relatively stable individual difference, capturing both cognitive and emotional reactions that may interfere with academic performance. The instrument is widely used in educational and psychological research and is appropriate for adolescent populations. The TAS consists of 37 dichotomously scored items to which respondents indicate whether each statement is true or false for them. The items assess three components of test anxiety: worry (cognitive concerns related to fear of failure and performance evaluation), emotionality (physiological and affective responses to testing situations), and interference (disruptions to concentration and task performance caused by anxiety). Total scores are obtained by summing affirmative responses, with higher scores indicating higher levels of test anxiety. The TAS has demonstrated satisfactory reliability and validity in adolescent samples. Internal consistency reliability coefficients (Cronbach's alpha) have typically ranged from .80 to .85. Evidence of construct validity has been provided through factor-analytic studies supporting the multidimensional structure of the scale. Criterion-related validity has been established through significant correlations with other measures of anxiety, stress, and academic achievement, such that higher test anxiety scores are associated with poorer academic outcomes. The TAS is brief, easy to administer, and culturally adaptable, making it suitable for assessing test anxiety in secondary school settings.

3.4 Screening for Academically At-Risk Students

Students were classified as academically at risk based on school records and teacher and counselor reports indicating persistent academic difficulties. Indicators included consistently low-test scores or examination results, poor grades or repeated failure in core subjects (e.g., Mathematics and English), declining academic performance, difficulties with basic literacy or numeracy skills, inability to complete classwork or homework independently, frequent absenteeism or truancy, missed assessments, low class participation, and withdrawal or lack of engagement in learning activities.

3.5 Method of Data Analysis

Data were analyzed using descriptive and inferential statistics with the Statistical Package for the Social Sciences (SPSS), version 26. Descriptive statistics, including frequencies, percentages, means, and standard deviations, were used to summarize the respondents' demographic characteristics and major study variables.

These analyses provided an overview of test anxiety and related variables among academically at-risk students in rural communities of Akure. Prior to conducting inferential analyses, assumptions of normality, linearity, multicollinearity, and homoscedasticity were examined using skewness and kurtosis values, histograms, and diagnostic statistics. Pearson product-moment correlation was employed to examine relationships between test anxiety and parenting styles, emotional intelligence, and religiosity. Multiple regression analysis was conducted to determine the joint and relative predictive contributions of the independent variables to test anxiety. Independent-samples t tests and one-way analyses of variance (ANOVA) were performed to assess differences in test anxiety across demographic variables, with post hoc tests conducted for significant ANOVA results. All hypotheses were tested at the 0.05 level of significance, and the findings were presented in tables and figures for clarity.

3.6 Ethical Considerations

Ethical approval for the study was obtained from the appropriate institutional research ethics committee prior to data collection. Permission to conduct the study was also sought and obtained from the Ondo State Ministry of Education and the principals of the selected secondary schools. Given that the participants were minors, written informed consent was obtained from parents or legal guardians, while assent was obtained from the students before participation. Participants were adequately informed about the purpose of the study, the procedures involved, and their right to decline participation or withdraw from the study at any stage without penalty. Confidentiality and anonymity were strictly maintained throughout the research process. No identifying information was collected, and responses were used solely for research purposes.

Data were coded and securely stored, accessible only to the researcher. Participants were assured that the questionnaires posed no physical or psychological harm, and care was taken to ensure that items did not intrude into sensitive personal or family matters. The study complied with established ethical principles of voluntariness, beneficence, non-maleficence, and respect for persons, in line with APA ethical standards for research involving human participants.

4. Results and Discussion

4.1 Demographic Characteristics of Respondents

Table 1 presents the demographic characteristics of the respondents.

Table 1: Demographic Characteristics of Students from Akure Rural Communities

Variable	Category	Frequency (n=300)	Percentage (%)
Gender	Male	150	50.0
	Female	150	50.0
Age Range (years)	12–14	90	30.0
	15–17	150	50.0
	18–20	60	20.0
Religion	Christianity	210	70.0
	Islam	85	28.3
	Traditional/Other	5	1.7
Parents' Socio-Economic Status	Low	165	55.0
	Middle	105	35.0
	High	30	10.0
School locations	Igoba	40	13.4
	Oba-Ile	60	20.0
	Aiyede-Ogbese	50	16.6
	Oda	60	20.0
	Aponmu	30	10.0
	Gbogbo/Isikan	60	20.0

Table 1 shows that the study sample comprised 300 respondents, with an equal representation of male (150; 50.0%) and female (150; 50.0%) students. This balanced gender distribution strengthens the study by minimizing gender bias and allowing for meaningful gender-based comparisons in test anxiety and related psychosocial variables. In terms of age distribution, the majority of respondents fell within the 15–17 years age range (150; 50.0%), which corresponds to the core senior secondary school population. Students aged 12–14 years constituted 90 respondents (30.0%), while those aged 18–20 years accounted for 60 respondents (20.0%). This spread reflects a typical secondary school age structure and suggests that the findings are relevant across early, middle, and late adolescence—a developmental period closely associated with heightened academic pressure and vulnerability to test anxiety. Regarding religious affiliation, most respondents identified as Christians (210; 70.0%), followed by Muslims (85; 28.3%), while a very small proportion reported Traditional or other religions (5; 1.7%). This distribution mirrors the dominant religious composition of Akure and its surrounding rural communities. The presence of multiple religious affiliations supports the inclusion of religiosity as a predictor variable and allows for examination of its potential protective or moderating influence on test anxiety.

Analysis of parents' socio-economic status (SES) revealed that over half of the respondents came from low socio-economic backgrounds (165; 55.0%), while 105 respondents (35.0%) were from middle SES homes, and only 30 respondents (10.0%) belonged to high SES families. This pattern highlights the predominance of economically disadvantaged households within rural communities and underscores the relevance of examining test anxiety among academically at-risk students, who may experience added stress due to limited parental resources and educational support. With respect to school location, respondents were drawn from six rural communities in Akure and its environs:

Igoba (40:13.4%), Oba-Ile (60:20%), Aiyede-Ogbese (50:16.6 %), Oda (60:20.0%), Aponmu (30:10.0%) and Gbogbo/Isikan (60:20.0%). The distribution of participants across these locations ensured adequate representation of different rural school contexts, thereby enhancing the ecological validity and generalizability of the findings to rural secondary schools in Akure, Ondo State.

Overall, the demographic profile indicates a balanced gender composition, a developmentally appropriate age range, religious diversity, and a predominantly low socio-economic background, all of which are consistent with the rural Nigerian secondary school setting. These characteristics provide a strong contextual foundation for interpreting the predictive influence of parenting styles, emotional intelligence, and religiosity on test anxiety among academically at-risk students.

Research Question One: What is the prevalence of test anxiety among academically at-risk students in Akure rural community secondary schools?

The Sarason Test Anxiety Scale (TAS) was used to assess test anxiety levels among academically at-risk students in Akure rural community secondary schools. Scores were categorized into three levels based on established cut-off points:

- Low test anxiety: 0–12,
- Moderate test anxiety: 13–24,
- High test anxiety: 25–37.

The result is displayed in Table 2.

Table 2: Levels of Test Anxiety

	Frequency (n=300)	Percentage (%)
Low	60	20.0
Moderate	180	60.0
High	60	20.0
Total	300	100.0

Table 2 indicates that 80% of students reported moderate to high levels of test anxiety, suggesting that examination-related stress is a common experience among secondary school students in Akure. However, only 20 % of the respondents have low test anxiety.

Research Question Two: Is there a significant difference in test anxiety between male and female academically at-risk students in Akure rural community secondary schools?

Table 3: Gender Differences in Levels of Test Anxiety (n = 300)

Gender	High Test Anxiety n (%)	Moderate Test Anxiety n (%)	Low Test Anxiety n (%)	Mean (\bar{x})
Male (n = 150)	27 (18%)	93 (62%)	30 (20%)	5.2
Female (n = 150)	33 (22%)	87 (58%)	30 (20%)	5.5

The results presented in Table 3 indicate gender differences in test anxiety among academically at-risk students in rural community secondary schools in Akure. Among male students, 18% reported high test anxiety, 62% reported moderate test anxiety, and 20% reported low test anxiety. In contrast, 22% of female students reported high test anxiety, 58% reported moderate test anxiety, and 20% reported low test anxiety. The table further reveals that female students reported slightly higher mean levels of test anxiety ($\bar{x} = 5.5$) compared with their male counterparts ($\bar{x} = 5.2$). These findings suggest that although moderate test anxiety was the most prevalent level for both genders, female students exhibited slightly higher levels of high-test anxiety than male students.

To determine whether this observed gender difference was statistically significant, an independent samples *t*-test was conducted. The results, also presented in Table 4, showed a significant difference in test anxiety between male and female students, $t(298) = 2.45$, $p \leq .015$. The relatively high prevalence of moderate to high test anxiety among students may be attributed to academic pressure, parental expectations, and the competitive nature of national examinations such as the West African Senior School Certificate Examination (WAEC) and the National Examination Council (NECO) examinations. These findings underscore the need for school-based interventions focused on stress management, emotional regulation, and supportive educational practices to mitigate test anxiety among academically at-risk students.

Table 4: Significant Difference in Test Anxiety between Male and Female Students

Variable	Gender	N	Mean	St.dev	Df	t	Sig
Test Anxiety	Male	150	19.8	5.2	298	2.45	0.015
	Female	150	21.4	5.5			

Research Question Three: What is the effect of test anxiety on the academic performance of academically at-risk students in Akure rural community secondary schools?

The effect of test anxiety and academic performance among secondary school students in Akure was examined using scores from the Sarason Test Anxiety Scale (TAS) and the students' term examination results in core subjects (Mathematics, English, and Science).

Academic performance was categorized as:

- High performance: 70% and above,
- Moderate performance: 50%–69%,
- Low performance: below 50%.

Table 5: Effect of Test Anxiety on Academic Performance

	High Performance	Moderate Performance	Low Performance	Total (%)
Low	40 (66.7%)	15 (25%)	5 (8.3%)	60 (100%)
Moderate	45 (25%)	90 (50%)	45 (25%)	180 (100%)
High	5 (8.3%)	25 (41.7%)	30 (50%)	60 (100%)

From Table 5, it is evident that students with low test anxiety generally performed better, with 66.7% achieving high academic scores. Conversely, students with high test anxiety were more likely to perform poorly, with 50% scoring below 50% in their examinations. Those with moderate anxiety mostly fell in the mid-performance range. A Pearson correlation was conducted to examine the relationship between test anxiety scores and academic performance scores. The analysis revealed a significant negative correlation: $r = -0.62$, $p < 0.01$. This indicates that higher levels of test anxiety are associated with lower academic performance among students in Akure. These findings suggest that test anxiety adversely affects students' ability to perform well academically. High anxiety may impair concentration, memory retrieval, and problem-solving abilities during examinations, resulting in lower scores. Moderate anxiety appears to have a mixed effect, potentially motivating some students while hindering others. Overall, the results underscore the importance of interventions to reduce test anxiety, such as stress management programs, counseling, and study skills training, to enhance academic outcomes in secondary school students.

Research Question Four: What is the joint contribution of the independent variables (parenting style, emotional intelligence, religiosity) to the prediction of test anxiety among academically at-risk students?

Multiple linear regression analysis was used to answer this research question.

The result is presented in Table 5.

Table 5: The Joint Contribution of the Independent Variables to the Prediction of the Dependent Variable among Academically At-risk Students

R = .733, Adjusted R ² = .530 R ² = .537, Std. Error = 4.05503					
Model	Ss	DF	Mean Square	F	Sig.
Regression	5579.354	3	1859.785	84.827	.000 ^b
Residual	4817.871	296	16.113		
Total	10397.225	300			

A multiple regression analysis was conducted to examine the joint contribution of parenting style, emotional intelligence, and religiosity to test anxiety among academically at-risk students in rural communities of Akure, Ondo State. The results presented in Table 4 indicated a strong multiple correlation between the predictors and test anxiety, $R = .733$. The coefficient of multiple determination indicated that the independent variables jointly accounted for 53.7% of the variance in test anxiety ($R^2 = .537$). The overall regression model was statistically significant, $F(3, 296) = 84.83$, $p < .05$, indicating that parenting style, emotional intelligence, and religiosity jointly contributed significantly to the prediction of test anxiety. The remaining 46.3% of the variance in test anxiety was unexplained by the model and may be attributable to factors not included in the present study.

Research Question Five: What is the relative contribution of parenting style, emotional intelligence, and religiosity to the prediction of test anxiety among academically at-risk students?

Table 6: The Relative Contribution of the Independent Variables to Test Anxiety

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	7.922	2.790		2.839	.005
Parenting style	.393	.029	.617	13.801	.000
Emotional intelligence	-.107	.033	-.138	-3.256	.001
Religiosity	.088	.030	.133	2.991	.003

Table 6 presents the multiple regression analysis examining the predictive influence of parenting style, emotional intelligence, and religiosity on test anxiety among academically at-risk students in rural communities of Akure, Ondo State. The results indicate that all three independent variables emerged as statistically significant predictors of test anxiety at the 0.05 level of significance. Among the predictors, parenting style was the most potent predictor of test anxiety, as evidenced by the highest standardized beta coefficient ($\beta = 0.617$). This variable also recorded a high t-value ($t = 13.801$), which was statistically significant ($p < .05$), indicating a strong contribution of parenting style to variations in test anxiety among the students. Emotional intelligence was the second most potent predictor and showed a negative predictive relationship with test anxiety ($\beta = -0.138$). The corresponding t-value ($t = -3.256$) was statistically significant ($p < .05$), suggesting that emotional intelligence contributed significantly to the prediction of test anxiety. Religiosity emerged as the least potent predictor; however, it still made a statistically significant contribution to the prediction of test anxiety ($\beta = 0.133$, $t = 2.991$, $p < .05$).

Overall, the findings demonstrate that parenting style, emotional intelligence, and religiosity significantly predicted test anxiety among academically at-risk students in Akure rural communities, with parenting style exerting the strongest predictive influence.

4.2 Discussion

The present study revealed that a majority of academically at-risk students in rural communities of Akure experienced moderate to high levels of test anxiety. This finding is consistent with recent empirical evidence indicating that test anxiety remains a pervasive psychological concern among secondary school students, particularly those who struggle academically. Studies conducted within the Nigerian context have demonstrated that academically at-risk students are more likely to report elevated examination anxiety, which adversely affects concentration, memory recall, and overall academic performance (Obiajuru & Chioma, 2024). Repeated academic difficulties and fear of failure may heighten students' vulnerability to anxiety during evaluative

situations, reinforcing maladaptive emotional responses to testing. This finding also aligns with contemporary research highlighting a strong negative association between test anxiety and academic achievement. For example, Ayang and Ngwu (2025) found that high test anxiety significantly predicted poor performance in mathematics among senior secondary school students. The implication is that the moderate to high levels of anxiety observed among academically at-risk students in Akure may further exacerbate their academic difficulties, thereby reinforcing a vicious cycle of anxiety and underachievement. Similar patterns have been documented internationally. Zhao, Liu, and Wang (2024) reported a high prevalence of moderate to severe test anxiety among secondary school students across different educational contexts, suggesting that test anxiety is a global educational challenge rather than a context-specific phenomenon.

Educational psychology research further emphasizes the role of cognitive appraisal in the development of test anxiety. Students who perceive examinations as threatening or exceeding their coping resources are more likely to experience heightened anxiety (Putwain & Pescod, 2024). For students in rural school settings, limited access to academic support services and learning resources may intensify these perceptions, contributing to the observed levels of anxiety. Collectively, these findings underscore the need for targeted interventions—such as anxiety-management programs, academic skills training, and school-based counseling services—to enhance coping strategies and academic confidence among academically at-risk students in rural communities.

The second major finding of the study revealed significant gender differences in test anxiety, with female students reporting higher levels of anxiety than their male counterparts. This result parallels patterns observed in recent Nigerian studies. For instance, Kumo and Hassan (2025) reported significantly higher test anxiety levels among female senior secondary school students in South West Nigeria. This suggests that gender remains a salient factor in the experience of examination-related anxiety within regions that include Akure.

Several sociocultural and educational factors may account for this disparity. Female students in many Nigerian communities often balance academic responsibilities with household duties, increasing emotional burden and susceptibility to anxiety (Kumo & Hassan, 2025). Additionally, social norms that encourage emotional restraint among males may lead to underreporting of anxiety symptoms, even when psychological stress is present. However, evidence on gender differences in test anxiety is not entirely consistent. Mohammed, Abdullahi and Sadiq (2025) found no significant gender differences in examination anxiety among university students in Kano, suggesting that contextual factors such as age group, institutional type, and assessment demands may moderate gender effects. Similarly, Ballah and Hanafi (2025) reported higher perceived stress among female undergraduates without corresponding increases in test anxiety, highlighting the complexity of gender-related emotional responses to academic pressure.

These mixed findings suggest that gender differences in test anxiety are context-dependent. In rural educational environments such as Akure, limited academic resources and support structures may amplify anxiety, particularly for female students who face

multiple role demands. Consequently, interventions should be gender-responsive and context-specific, incorporating counseling, study skills training, and community engagement strategies to support both male and female students.

The third finding indicated a significant negative relationship between test anxiety and academic performance. This result is consistent with contemporary research in educational psychology, which identifies test anxiety as a major barrier to optimal academic functioning. Excessive worry and emotional arousal associated with test anxiety interfere with cognitive processes such as attention, working memory, and information retrieval, thereby impairing academic performance (Putwain & Pescod, 2024). Empirical evidence supports this inverse relationship. Ayang and Ngwu (2025) demonstrated that students with high test anxiety performed significantly worse in mathematics, while Zhao *et al.* (2024) reported lower academic scores among students experiencing moderate to severe test anxiety.

Within the Nigerian context, Obiajuru and Chioma (2024) similarly found that heightened examination anxiety significantly predicted poor academic achievement among public secondary school students. Longitudinal research further suggests that persistent test anxiety may contribute to a self-perpetuating cycle of underachievement, wherein poor performance lowers academic self-concept and increases anxiety in subsequent evaluative situations (von der Embse, Barterian, & Segool, 2023). These findings highlight the importance of early identification and intervention to prevent long-term academic difficulties.

The fourth finding demonstrated that parenting style, emotional intelligence, and religiosity jointly predicted students' test anxiety. This finding aligns with an emerging body of research emphasizing the interconnected roles of familial, personal, and cultural factors in shaping emotional responses to academic stress. Parenting style has been widely linked to emotional development and anxiety outcomes. Authoritative parenting, characterized by warmth and autonomy support, has been associated with better emotional regulation and lower anxiety, whereas authoritarian parenting is linked to heightened anxiety and stress responses (Putwain & Best, 2011). Emotional intelligence also plays a crucial role, as individuals with higher emotional intelligence are better equipped to regulate emotions and employ adaptive coping strategies in stressful situations (Adekeye, Adeniyi & Olatoye, 2025). Religiosity has similarly been identified as a coping resource that may buffer academic stress by providing meaning, emotional regulation strategies, and social support (Orekoya, 2025). The joint contribution of these variables suggests that test anxiety is best understood through a multivariate framework that considers internal regulation abilities, external socialization contexts, and culturally embedded coping mechanisms.

The fifth finding revealed that parenting style was the most potent predictor of test anxiety, followed by emotional intelligence and religiosity. The strong predictive power of parenting style underscores the critical influence of the family environment on students' emotional responses to academic evaluation. Consistent with prior research, maladaptive parenting practices—particularly authoritarian and overcontrolling styles—

have been associated with heightened test anxiety, whereas supportive parenting mitigates anxiety by fostering emotional security and autonomy (Manyeruke, 2024; Zhang, 2025). Emotional intelligence emerged as a protective factor, with higher levels associated with lower test anxiety, supporting evidence that emotionally intelligent students are better able to manage stress (Trigueros, Aguilar-Parra, Cangas & Álvarez, 2020). Although religiosity was the weakest predictor, its significant contribution suggests that spiritual beliefs and practices play a meaningful, albeit complex, role in students' anxiety experiences (Yaghoobi, Karimi & Khezri, 2021). Overall, these findings highlight the multifaceted nature of test anxiety and underscore the need for integrated intervention strategies. Parent-focused education, emotional intelligence training, and culturally sensitive support mechanisms may be particularly effective in reducing test anxiety and improving academic outcomes among students in rural communities.

4.3 Implications of the Study

The findings of this study have important implications for educational practice, parental involvement, and policy, particularly in rural secondary school contexts. The high prevalence of test anxiety among academically at-risk students underscores the need for schools to integrate early identification and intervention strategies into routine academic practices. Teachers and school counselors should be trained to recognize anxiety-related behaviours and implement classroom-based strategies, such as test-taking skills training and anxiety-management techniques, to support students' emotional well-being. The negative relationship between test anxiety and academic performance suggests that instructional and assessment practices should emphasize formative assessment, supportive feedback, and reduced reliance on high-stakes testing. The observed gender differences in test anxiety further imply the need for gender-responsive interventions that address the specific emotional and social challenges faced by students, particularly females, while encouraging help-seeking behaviours among all learners. The strong predictive influence of parenting style highlights the importance of parent-focused educational programs that promote supportive and autonomy-enhancing parenting practices. In addition, the protective role of emotional intelligence suggests that socio-emotional learning should be incorporated into the school curriculum to enhance students' coping skills. The contribution of religiosity indicates that culturally sensitive support mechanisms may further help students manage test-related stress. Overall, the findings emphasize the need for a comprehensive approach involving schools, families, and policymakers to reduce test anxiety and promote improved academic and psychological outcomes among secondary school students.

5. Recommendations

Based on the findings that test anxiety negatively affects academic performance among academically at-risk students, the following recommendations are proposed.

- 1) Schools should implement targeted interventions such as anxiety-management and study-skills programs, strengthen guidance and counseling services, and create supportive learning environments that reduce fear of failure, particularly in rural communities.
- 2) Comprehensive counseling and psychological support services should be provided to help students manage test anxiety. Teachers should be trained to identify anxiety symptoms and adopt supportive instructional and assessment practices. In addition, test-taking skills and effective study strategies should be integrated into school programs to enhance students' confidence and academic performance.
- 3) Guidance and counseling units should emphasize evidence-based coping strategies, including relaxation techniques, cognitive restructuring, and stress-management skills, to improve students' emotional regulation during examinations.
- 4) Schools should incorporate structured test anxiety intervention programs focusing on test-taking skills, time management, and study strategies to improve examination preparedness and reduce anxiety-related performance difficulties.
- 5) Educational authorities should integrate mental health and anxiety-management initiatives into secondary school policies, with particular attention to rural and resource-constrained school environments.

6. Conclusion

The study concluded that test anxiety is highly prevalent among academically at-risk secondary school students in rural community schools in Akure and poses a serious threat to academic performance. Female students were found to experience higher levels of test anxiety than males, and test anxiety showed a significant negative relationship with academic achievement. Parenting style, emotional intelligence, and religiosity jointly predicted test anxiety, with parenting style emerging as the strongest predictor. These findings underscore the multifaceted nature of test anxiety and highlight the need for integrated interventions that promote supportive parenting practices, emotional skills development, and culturally relevant coping strategies to reduce test anxiety and enhance academic outcomes among at-risk students in rural communities.

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Conflict of Interest Statement

The author(s) declare that this research was entirely self-funded and that there are no commercial, financial, or personal relationships that could be perceived as a potential conflict of interest.

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