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Traumatic Learning Conditions as Predictors of Academic Adjustment Among Secondary School Students in Insurgency-Affected Resettled Communities of Northeast Nigeria[1]

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Abstract

The protracted Boko Haram insurgency in Northeast Nigeria has created deeply traumatic learning conditions for thousands of secondary school students in resettled communities of Borno State, with far-reaching consequences for their academic functioning and educational recovery. Despite growing humanitarian efforts, limited empirical attention has examined how traumatic learning conditions predict academic adjustment among students in insurgency-affected resettled communities. This study investigated traumatic learning conditions as predictors of academic adjustment among 368 senior secondary school students in Bama, Gwoza, and Konduga Local Government Areas of Borno State, Nigeria. A correlational survey research design was adopted, and participants were selected through multistage sampling from nine public secondary schools across the three Local Government Areas. Data were collected using the Traumatic Learning Conditions and Academic Adjustment Questionnaire (TLCAAQ) and analysed using descriptive statistics, Pearson Product Moment Correlation, and multiple linear regression. The findings revealed that students experienced high levels of traumatic learning conditions across four dimensions exposure to violence and insecurity, displacement-related experiences, trauma-related emotional distress, and disruption of schooling while academic adjustment was markedly low. All four dimensions significantly and negatively predicted academic adjustment, with trauma-related emotional distress emerging as the strongest predictor ($\beta = -0.256$, $p < 0.001$), followed by displacement-related experiences ($\beta = -0.253$), disruption of schooling ($\beta = -0.215$), and exposure to violence and insecurity ($\beta = -0.204$). The study concludes that traumatic learning conditions

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constitute a significant threat to academic adjustment in insurgency-affected resettled communities and recommends the integration of trauma-sensitive educational policies, school-based counselling services, and structured psychosocial support programmes into educational recovery frameworks for conflict-affected students in Borno State and comparable contexts.

Keywords: Traumatic learning conditions · Academic adjustment · Insurgency-affected communities · Resettled communities · Secondary school students · Borno State · Northeast Nigeria · Conflict-affected education · Psychosocial wellbeing

Introduction

Education is widely recognized as one of the most powerful instruments for individual empowerment, social cohesion, and national development. Yet for millions of children living in conflict-affected regions, the classroom is not a sanctuary but a site of fear, uncertainty, and psychological burden. Armed conflicts disrupt schooling in ways that extend far beyond the physical destruction of educational infrastructure they fracture the psychological foundations upon which meaningful learning depends. When children witness violence, lose family members, experience forced displacement, or return to schools that remain under the shadow of ongoing insecurity, their capacity to engage with learning is profoundly compromised (Berger et al., 2026; Tilwani et al., 2022). The consequences are not temporary. Research consistently demonstrates that traumatic experiences during childhood and adolescence leave lasting imprints on cognitive functioning, emotional regulation, and academic behaviour, shaping students' trajectories long after the immediate crisis has subsided (Tamir et al., 2025; Tyrone et al., 2024).

Globally, the scale of this problem is staggering. Hundreds of millions of school-aged children currently live in fragile, conflict-affected, or violence-prone settings where access to safe and quality education remains deeply precarious. According to the Global Coalition to Protect Education from Attack (GCPEA, 2022), deliberate attacks on schools, students, and teachers have been documented in dozens of countries, with Sub-Saharan Africa bearing a disproportionate share of this burden. Children in these settings are not merely deprived of classroom time they are exposed to experiences that generate chronic traumatic stress, disrupt healthy development, and undermine the foundational skills required for academic adjustment (Unfried & Kis-Katos, 2023; Kassa et al., 2024). The relationship between exposure to conflict-related trauma and diminished educational outcomes has been documented across diverse geographical contexts, reinforcing the understanding that armed violence constitutes one of the most serious threats to children's educational futures (Justino, 2016; Tilwani et al., 2022).

Within Africa, Nigeria represents one of the most severe cases of conflict-driven educational disruption. The Boko Haram insurgency, which erupted in 2009 and continues to destabilize significant portions of the Northeast, has caused incalculable damage to educational systems across Borno, Yobe, and Adamawa States. Schools have been burned, teachers killed or displaced, and thousands of students abducted, wounded, or forced to flee their communities. UNESCO (2023) reported that the Northeast geopolitical zone of Nigeria records some of the worst education indicators in the country, including chronically low enrolment rates, high dropout figures, and severe learning deficits attributable in large part to the persistent effects of insurgency. UNICEF (2022) further estimated

that over 1.9 million children in the region have been displaced due to the insurgency, with thousands of schools destroyed or rendered non-functional. For the children who remain, the act of attending school itself often takes place within environments saturated with memories of violence, displacement, and loss conditions that constitute what this study terms traumatic learning conditions.

Borno State sits at the epicentre of this crisis. Among the most severely affected Local Government Areas are Bama, Gwoza, and Konduga communities that experienced repeated insurgent attacks, mass population displacement, and prolonged school closures at the height of the conflict. While government rehabilitation programmes and humanitarian interventions have facilitated partial resettlement and the reopening of schools in these communities, the return to formal education does not automatically translate into meaningful academic recovery. Students resettling in these communities carry the psychological weight of what they witnessed and endured, and the learning environments they return to frequently remain inadequate, under-resourced, and emotionally unsafe (Muhammad & Abdullahi, 2025; Shockden et al., 2023).

Academic adjustment, broadly understood as a student's ability to successfully adapt to the cognitive, behavioural, and emotional demands of the school environment, is a multidimensional construct that encompasses classroom participation, concentration, motivation, task completion, and the capacity to cope with academic challenges (Woreta, 2024; Azpiazu et al., 2024). It is deeply sensitive to psychosocial conditions, and evidence from multiple settings confirms that students who carry unresolved trauma are significantly less likely to demonstrate healthy academic adjustment (Niu et al., 2025; Denicola et al., 2025). Traumatic learning conditions encompassing exposure to violence and insecurity, displacement-related disruptions, emotional distress, and prolonged interruption of schooling represent a constellation of adversities that can erode the very psychological resources students need to engage meaningfully with education (Otorkpa et al., 2024; Zhao et al., 2024).

Despite the volume of literature documenting the general effects of conflict on educational outcomes, there remains a notable empirical gap with respect to secondary school students in insurgency-affected resettled communities of Northeast Nigeria. Most existing studies in this context have either focused on broader psychosocial outcomes, concentrated on primary school populations, or examined educational disruption at the systemic rather than the individual student level. Very few have empirically investigated the specific nature of traumatic learning conditions experienced by students who have returned to resettled communities, nor examined how these conditions predict their academic adjustment. This study addresses that gap directly.

Statement of the Problem

The Boko Haram insurgency has created an educational emergency in Northeast Nigeria that extends well beyond physical infrastructure damage. Students in resettled communities of Bama, Gwoza, and Konduga return to school environments that remain psychologically hostile marked by fear, grief, loss, and the sustained effects of displacement. Despite government rehabilitation efforts and humanitarian interventions, there is a conspicuous absence of empirical evidence on the specific traumatic learning conditions these students face and how such conditions predict their academic adjustment. Most existing studies have concentrated on primary school populations, broader psychosocial outcomes, or systemic disruptions at the policy level, leaving secondary school students in resettled communities of Borno State poorly understood and inadequately served. Without evidence-based understanding of the relationship between traumatic learning conditions and academic adjustment among this population, educational recovery interventions remain poorly targeted and largely ineffective. This study addresses

that gap by examining traumatic learning conditions as predictors of academic adjustment among senior secondary school students in insurgency-affected resettled communities of Borno State, Nigeria.

Aim and Objective of the Study

The aim of this study is to investigate traumatic learning conditions as predictors of academic adjustment among secondary school students in insurgency-affected resettled communities of Bama, Gwoza, and Konduga Local Government Areas of Borno State, Nigeria. The specific objectives are to:

i. Examine the traumatic learning conditions experienced by students in resettled communities of Borno State.
ii. Determine the level of academic adjustment among secondary school students in insurgency-affected resettled communities.
iii. Investigate the relationship between traumatic learning conditions and academic adjustment among secondary school students in resettled communities of Borno State.

Research Questions

The following research questions guided this study:

1. What are the traumatic learning conditions experienced by secondary school students in insurgency-affected resettled communities of Borno State?
2. What is the level of academic adjustment among secondary school students in insurgency-affected resettled communities of Borno State?
3. What is the relationship between traumatic learning conditions and academic adjustment among secondary school students in insurgency-affected resettled communities of Borno State?

Traumatic Learning Conditions

The concept of traumatic learning conditions refers to the sustained, multidimensional distressing circumstances within and around the school environment that overwhelm students' psychological capacity to engage meaningfully with education. They arise from the intersection of conflict-related violence, forced displacement, emotional suffering, and structural disruption of schooling all of which impair the cognitive, emotional, and behavioural foundations of academic functioning (Berger et al., 2026; Otorkpa et al., 2024). Exposure to violence and insecurity is among the most documented dimensions. When students witness attacks, experience bombings, or live under the constant threat of abduction, the school environment loses its psychological safety. Evidence from Sub-Saharan Africa confirms that children in areas exposed to deliberate attacks on educational facilities demonstrate substantially lower enrolment and attainment (Unfried & Kis-Katos, 2023), with fear manifesting in the classroom as hypervigilance, poor concentration, and avoidance (Tamir et al., 2025; Kassa et al., 2024). Displacement-related experiences sever students from familiar school environments, peer networks, and community support systems. Resettled children frequently encounter overcrowded, under-resourced schools staffed by teachers who are themselves psychologically affected by the conflict (Tilwani et al., 2022). These disruptions create learning gaps that are especially difficult to recover when resettlement remains fragile or insecurity persists (Andualem et al., 2024). Trauma-related emotional distress encompassing persistent fear, anxiety, grief, and PTSD symptoms is perhaps the most psychologically penetrating dimension. Chronic traumatic stress impairs memory consolidation, weakens executive functioning, reduces attention span, and undermines emotional self-regulation, all of which are indispensable for learning (Tamir et al., 2025; Zhao et al., 2024). Finally, prolonged

disruption of schooling through closures, teacher displacement, and facility destruction strips students of academic content, social routines, and peer relationships that serve as protective factors against psychological deterioration (Justino, 2016; UNESCO, 2023).

Academic Adjustment and the Trauma-Education Nexus

Academic adjustment encompasses concentration, active participation, task completion, sustained motivation, and effective coping with the demands of formal education (Woreta, 2024; Azpiazu et al., 2024). It is a dynamic process shaped continuously by the interaction between individual psychological resources and the quality of the learning environment. Students with high academic adjustment demonstrate greater engagement and stronger performance, while those with poor adjustment tend to disengage and withdraw (Niu et al., 2025). Empirical evidence consistently links trauma exposure to impaired academic outcomes. Tyrone et al. (2024), in a systematic review and meta-analysis across 20 studies, found a consistent negative correlation between adverse childhood experiences and academic performance, with cumulative trauma creating compounding barriers to educational achievement. Zhao et al. (2024) demonstrated that PTSD symptoms undermined academic control and generated negative academic emotions that persisted and worsened a full year after a traumatic event directly challenging the assumption that resettlement alone produces academic recovery.

Evidence from African contexts is particularly instructive. Shockden et al. (2023) found that four domains of student wellbeing accounted for 70.5%–88.3% of variance in academic persistence and engagement among secondary school students in Northern Nigeria, while Kassa et al. (2024) documented elevated anxiety that directly disrupted educational functioning among high school students in conflict-affected northeast Ethiopia. Muhammad and Abdullahi (2025) specifically identified PTSD symptoms as impairing concentration, memory, motivation, peer relationships, and academic adjustment among conflict-affected children in Northern Nigeria, calling for school-based psychosocial interventions as the most feasible remedial mechanism. Taken together, these studies confirm that trauma and academic functioning are closely and negatively intertwined, and that students in resettled communities of Borno State are among the most educationally vulnerable populations in the region.

Theoretical Framework

This study is anchored on three complementary frameworks. Bronfenbrenner's Ecological Systems Theory holds that human development is shaped by the layered interaction between the individual and their environmental systems — microsystem (family, school), mesosystem (home-school connections), exosystem (community institutions), and macrosystem (broader cultural and political conditions) (Antony, 2022). The Boko Haram insurgency has violently disrupted every ecological layer simultaneously for students in Bama, Gwoza, and Konduga destroying schools, fracturing families, dismantling community institutions, and embedding insecurity at the macrosystemic level. This framework explains why traumatic learning conditions in this context are not merely individual psychological phenomena but systemic educational crises.

Trauma Theory, as formalised by SAMHSA (2020), holds that traumatic experiences overwhelm an individual's capacity to cope, generating responses that alter brain architecture, disrupt emotional regulation, and undermine the psychological safety required for learning. When trauma is chronic — as it is for students who have experienced prolonged insurgency and repeated displacement — these effects become embedded in the nervous system, making recovery without deliberate intervention unlikely. This framework explains the specific pathways through which each dimension of traumatic learning

conditions translates into deficits in academic adjustment (Tamir et al., 2025; Zhao et al., 2024). Hobfoll's (1989) Conservation of Resources Theory adds a third layer by proposing that stress intensifies when valued resources are threatened, lost, or fail to be gained after significant investment. Students in resettled communities have lost extraordinary breadths of resources — safe schools, stable social networks, qualified teachers, and emotional security — and COR Theory predicts that this depletion makes it increasingly difficult to invest the psychological and cognitive resources that academic adjustment requires. Together, these three frameworks provide an environmental, psychological, and resource-based architecture for understanding and interpreting the findings of this study.

Research Design

This study adopted a correlational survey research design. This design was considered appropriate because the study sought to examine the nature and strength of the relationship between traumatic learning conditions and academic adjustment among secondary school students without manipulating any of the variables under investigation. Correlational designs are well suited to educational research in conflict-affected settings where experimental manipulation is neither feasible nor ethical, and they allow researchers to establish meaningful patterns of association across large samples drawn from naturally occurring populations (Creswell & Creswell, 2018). The survey approach further enabled the collection of data from a geographically dispersed sample within a reasonable timeframe, making it particularly practical for a study spanning three Local Government Areas of Borno State.

Population of the Study

The target population comprised all senior secondary school students (SS1, SS2, and SS3) enrolled in public secondary schools in Bama, Gwoza, and Konduga Local Government Areas of Borno State, Nigeria. These three Local Government Areas were purposively selected on the basis of their status as among the most severely insurgency-affected and subsequently resettled communities in the state. A total of nine public secondary schools were identified across the three Local Government Areas, comprising a mix of mixed-gender and single-gender institutions. The total population of senior secondary school students across all nine schools was 4,458, distributed as follows: 1,128 students in Konduga LGA, 1,525 students in Gwoza LGA, and 1,805 students in Bama LGA.

Sample and Sampling Technique

A sample of 368 students was drawn from the total population of 4,458 using the Taro Yamane formula at a 95% confidence level and a margin of error of 0.05:

$$n = \frac{N}{1+N(e)^2}$$

Where:

- (n) = Sample size
- (N) = Population size
- (e) = Level of significance (0.05)

$$= \frac{4458}{1 + 4458 \times (0.05)^2}$$

n = 368

Multistage sampling was employed to select participants. In the first stage, the three Local Government Areas were purposively selected based on their documented history of insurgency-related displacement and subsequent resettlement. In the second stage, all nine public secondary schools within the selected Local Government Areas were included. In the third stage, proportionate stratified random sampling was used to allocate the required number of participants from each school, with stratification by class level (SS1, SS2, and SS3). Within each stratum, participants were selected through simple random sampling using a balloting technique.

Instrument for Data Collection

Data were collected using a structured questionnaire titled the Traumatic Learning Conditions and Academic Adjustment Questionnaire (TLCAAQ), developed by the researcher based on an extensive review of related literature. The questionnaire comprised two main sections. Section A captured demographic information. Section B comprised two subscales: the Traumatic Learning Conditions Scale (TLCS) measuring four dimensions — exposure to violence and insecurity, displacement-related experiences, trauma-related emotional distress, and disruption of schooling and the Academic Adjustment Scale (AAS) measuring concentration, participation, motivation, task completion, and coping with academic demands. All items were rated on a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).

Validity and Reliability

Content validity was established through expert review by three specialists in educational psychology, measurement and evaluation, and conflict-affected education. A pilot study was conducted with 30 students outside the main sample to assess reliability. Cronbach's alpha coefficients were: B1 Violence & Insecurity ($\alpha = 0.870$), B2 Displacement ($\alpha = 0.888$), B3 Emotional Distress ($\alpha = 0.886$), B4 Schooling Disruption ($\alpha = 0.866$), Overall TLCS ($\alpha = 0.884$), and AAS ($\alpha = 0.968$), all exceeding the 0.70 threshold recommended by Nunnally and Bernstein (1994).

Ethical Considerations

Permission was obtained from principals of all participating schools. Participants were informed of the study purpose, voluntary participation was emphasized, and confidentiality was assured. Informed assent was obtained from student participants and consent from school administrators.

Method of Data Analysis

Data were analysed using SPSS version 25.0. Descriptive statistics (mean and standard deviation) addressed Objectives 1 and 2. Pearson Product Moment Correlation addressed Objective 3, and multiple linear regression determined the predictive contribution of each TLC dimension to academic adjustment. Significance was set at $p < 0.05$.

Demographic Characteristics of Respondents

A total of 368 senior secondary school students participated in this study. The demographic characteristics of the respondents are summarized in Table 1.

Table 1: Demographic Characteristics of Respondents (N = 368)

Variable	Category	Frequency	Percentage (%)
Gender	Male	201	54.6
	Female	167	45.4

Variable	Category	Frequency	Percentage (%)
	Total	368	100.0
Class Level	SS1	153	41.6
	SS2	109	29.6
	SS3	106	28.8
	Total	368	100.0
Local Government Area	Bama	143	38.9
	Gwoza	126	34.2
	Konduga	99	26.9
	Total	368	100.0
Age	14–15 years	122	33.2
	16–17 years	174	47.3
	18 years and above	72	19.6
	Total	368	100.0
School Type	Mixed	204	55.4
	Boys Only	93	25.3
	Girls Only	71	19.3
	Total	368	100.0

Source: Field Survey, 2026

As shown in Table 1, male respondents constituted 54.6% (n = 201) of the sample while female respondents accounted for 45.4% (n = 167). SS1 students formed the largest class group at 41.6% (n = 153), followed by SS2 at 29.6% (n = 109) and SS3 at 28.8% (n = 106). Respondents from Bama were most represented at 38.9% (n = 143), followed by Gwoza at 34.2% (n = 126) and Konduga at 26.9% (n = 99). The majority of respondents were aged 16–17 years (47.3%, n = 174), followed by 14–15 years (33.2%, n = 122) and 18 years and above (19.6%, n = 72). Students from mixed-gender schools formed the largest school-type category at 55.4% (n = 204).

Traumatic Learning Conditions Experienced by Students

The first objective examined traumatic learning conditions experienced by students. Descriptive statistics were computed for each dimension and the overall TLCS, with a mean of 2.50 used as the benchmark for high levels. Results are presented in Table 2.

Table 2: Descriptive Statistics for Traumatic Learning Conditions

Dimension	Mean	SD	Remark
B1: Exposure to Violence and Insecurity	4.13	0.33	High
B2: Displacement-Related Experiences	3.94	0.34	High
B3: Trauma-Related Emotional Distress	4.36	0.37	High
B4: Disruption of Schooling	4.00	0.31	High
Overall TLCS	4.11	0.21	High

N = 368; Scale: 1–5; Benchmark: Mean ≥ 2.50 = High

Results in Table 2 reveal that students experienced high levels of traumatic learning conditions across all four dimensions. Trauma-related emotional distress recorded the highest mean (M = 4.36, SD =

0.37), followed by exposure to violence and insecurity (M = 4.13, SD = 0.33), disruption of schooling (M = 4.00, SD = 0.31), and displacement-related experiences (M = 3.94, SD = 0.34). The overall TLCS mean of 4.11 (SD = 0.21) confirms that the cumulative traumatic learning burden experienced by students in these communities is severe and pervasive.

Level of Academic Adjustment Among Students

The second objective determined the level of academic adjustment among students. Results are presented in Table 3.

Table 3: Descriptive Statistics for Academic Adjustment

Scale	Mean	SD	Remark
Academic Adjustment Scale (AAS)	2.03	0.59	Low

N = 368; Scale: 1–5; Benchmark: Mean ≥ 2.50 = Adequate Adjustment

Table 3 shows that the overall mean score for academic adjustment was 2.03 (SD = 0.59), falling below the benchmark of 2.50. This indicates that students in insurgency-affected resettled communities of Borno State demonstrate a low level of academic adjustment, reporting significant difficulties with classroom concentration, participation, motivation, task completion, and coping with the demands of secondary school education.

Relationship Between Traumatic Learning Conditions and Academic Adjustment

The third objective investigated the relationship between traumatic learning conditions and academic adjustment using Pearson Product Moment Correlation. Results are presented in Table 4.

Table 4: Pearson Correlation Between Traumatic Learning Conditions and Academic Adjustment

Dimension	r	p-value	Decision
B1: Exposure to Violence and Insecurity	-0.356	<0.001	Significant
B2: Displacement-Related Experiences	-0.412	<0.001	Significant
B3: Trauma-Related Emotional Distress	-0.356	<0.001	Significant
B4: Disruption of Schooling	-0.376	<0.001	Significant
Overall TLCS	-0.591	<0.001	Significant

N = 368; Significant at p < 0.05 (two-tailed)

Table 4 reveals that all four dimensions of traumatic learning conditions are significantly and negatively correlated with academic adjustment. Displacement-related experiences showed the strongest negative correlation (r = -0.412, p < 0.001), followed by disruption of schooling (r = -0.376), and both violence exposure and emotional distress (r = -0.356 each). The overall TLCS demonstrated the strongest relationship at r = -0.591 (p < 0.001), confirming that the cumulative effect of traumatic learning conditions is considerably more damaging to academic adjustment than any single dimension alone.

Predictive Contribution of Traumatic Learning Conditions on Academic Adjustment

Multiple linear regression was conducted to determine the predictive contribution of each TLC dimension to academic adjustment. Results are presented in Tables 5 and 6.

Table 5: Model Summary

R	R^2	Adjusted R^2	F	df1	df2	p-value
0.591	0.349	0.342	48.606	4	363	<0.001

Table 6: Regression Coefficients

Predictor	B	SE	β	t	p-value
Constant	8.695	0.483	—	18.007	<0.001
B1: Violence & Insecurity	-0.364	0.081	-0.204	-4.505	<0.001
B2: Displacement	-0.439	0.079	-0.253	-5.563	<0.001
B3: Emotional Distress	-0.410	0.070	-0.256	-5.878	<0.001
B4: Schooling Disruption	-0.411	0.086	-0.215	-4.779	<0.001

Dependent Variable: Academic Adjustment; $p < 0.05$

Table 5 shows that the four TLC dimensions collectively accounted for 34.9% of the variance in academic adjustment ($R^2 = 0.349$, Adjusted $R^2 = 0.342$), with the overall model statistically significant ($F(4, 363) = 48.606$, $p < 0.001$). Table 6 reveals that all four dimensions independently and significantly predicted academic adjustment in the negative direction. Trauma-related emotional distress emerged as the strongest predictor ($\beta = -0.256$, $t = -5.878$, $p < 0.001$), followed by displacement-related experiences ($\beta = -0.253$), disruption of schooling ($\beta = -0.215$), and exposure to violence and insecurity ($\beta = -0.204$).

Discussion

Students in insurgency-affected resettled communities of Borno State experience severely high levels of traumatic learning conditions (overall TLCS M = 4.11), with trauma-related emotional distress the most acutely felt dimension. This is consistent with Shockden et al. (2023), who documented significant psychological burdens pervading the educational environments of Northern Nigerian secondary school students, and with Kassa et al. (2024), who recorded elevated distress among conflict-exposed students in northeast Ethiopia. Tamir et al. (2025) confirmed that chronic traumatic stress generates pervasive fear, anxiety, and grief that become deeply embedded in conflict-exposed young people. From the perspective of Bronfenbrenner's Ecological Systems Theory, the simultaneous collapse of students' microsystems, mesosystems, exosystems, and macrosystems creates conditions fundamentally hostile to safe learning (Antony, 2022), while COR Theory explains how the catastrophic loss of personal, social, and institutional resources intensifies the experience of every traumatic learning condition (Hobfoll, 1989).

The low level of academic adjustment (AAS M = 2.03) is consistent with Muhammad and Abdullahi (2025), who reported impaired concentration, memory, motivation, and peer relationships among conflict-affected children in Northern Nigeria. Niu et al. (2025) demonstrated that adverse childhood experiences systematically undermine school engagement through pathways of distress and disengagement, while Woreta (2024) established that academic socialization and motivational beliefs — precisely what insurgency erodes — are among the strongest drivers of engagement. Trauma Theory offers the most direct explanation: traumatic experiences alter neurobiological functioning in ways that reduce attentional capacity, impair memory consolidation, and weaken executive functioning that learning demands (SAMHSA, 2020; Zhao et al., 2024).

The significant negative relationship between all four TLC dimensions and academic adjustment ($r = -0.356$ to -0.412; overall $r = -0.591$, $p < 0.001$) aligns with Tyrone et al. (2024), whose meta-analysis

confirmed consistent negative associations between adverse childhood experiences and academic outcomes. The stronger overall TLCS correlation demonstrates the dose-response principle cumulative traumatic exposure produces disproportionately larger harm than individual dimensions alone (Tamir et al., 2025; Andualem et al., 2024). From a COR perspective, each additional dimension of traumatic learning conditions compounds resource depletion, progressively diminishing students' capacity for academic adjustment (Hobfoll, 1989).

The emergence of trauma-related emotional distress as the strongest predictor ($\beta = -0.256$) is neurobiologically coherent persistent fear, anxiety, and dysregulation directly compromise prefrontal cortical functioning governing the executive skills essential for academic performance (Tamir et al., 2025; Zhao et al., 2024). Denicola et al. (2025) similarly identified internalizing symptoms as the most powerful mediators between trauma and poor school outcomes, while Wilson-Ching and Berger (2024) confirmed that emotional safety is foundational to academic engagement. The finding that all four dimensions independently and significantly predict academic adjustment confirms that traumatic learning conditions operate through multiple simultaneous mechanisms — meaning that interventions targeting only one dimension are unlikely to produce meaningful academic improvement. The remaining 65.1% of unexplained variance signals the importance of additional factors, including individual resilience, family stability, teacher quality, and social support, as targets for future investigation.

Several limitations should be noted. The correlational design establishes association but not causation. Reliance on student self-report introduces common method bias. The study is geographically restricted to three LGAs, limiting broader generalizability. The cross-sectional design captures a single point in time and cannot account for developmental changes in traumatic learning conditions or academic adjustment over students' schooling trajectories.

Conclusion

This study investigated traumatic learning conditions as predictors of academic adjustment among secondary school students in insurgency-affected resettled communities of Borno State, Nigeria. Three principal findings emerged. First, students experience severely high levels of traumatic learning conditions across all four dimensions examined, with trauma-related emotional distress constituting the most acutely experienced dimension. Second, the level of academic adjustment is markedly low, indicating widespread difficulties with concentration, participation, motivation, task completion, and coping with school demands. Third, all four dimensions of traumatic learning conditions significantly and negatively predict academic adjustment, with emotional distress as the strongest predictor, followed by displacement, schooling disruption, and violence exposure.

These findings confirm that physical return to school is not sufficient for educational recovery. Meaningful academic adjustment requires deliberate, sustained, and psychologically informed intervention at every level of the educational system. The implications extend beyond Borno State across Northeast Nigeria and comparable conflict-affected contexts globally, the evidence from this study confirms that trauma-sensitive approaches are prerequisites, not supplements, to effective educational programming.

Recommendations

Based on the findings, the following recommendations are offered:

i. The Borno State Ministry of Education should develop and implement a comprehensive trauma-sensitive education policy framework formally integrating psychosocial support into

secondary education delivery in conflict-affected Local Government Areas, including mandatory trauma screening protocols and minimum standards for school safety.

ii. School administrators in resettled communities should prioritize creating psychologically safe learning environments, establishing structured safe spaces, ensuring predictable school routines, and fostering cultures that destigmatize psychological distress and encourage help-seeking behaviour.

iii. School counsellors should be trained in evidence-based trauma-focused counselling approaches and should deliver structured group and individual sessions targeting fear reduction, grief processing, emotional regulation, and the rebuilding of academic self-efficacy. Where counsellor-to-student ratios are prohibitively high, supervised peer support models should be considered (Perryman et al., 2025).

iv. All teachers in insurgency-affected resettled schools should receive foundational training in trauma-informed pedagogy, equipping them to recognize trauma-driven withdrawal, adapt instruction to affected students' emotional and cognitive capacities, and build the trust-based relationships that protect academically at-risk learners (Wilson-Ching & Berger, 2024).

v. Non-governmental and international development organizations should scale up school-based psychosocial support programmes in resettled communities, ensuring cultural grounding, community embeddedness, and partnership with local educational authorities (Avery et al., 2021; Berger et al., 2026).

vi. Future studies should adopt longitudinal designs to track changes in traumatic learning conditions and academic adjustment over time. Researchers should explore protective factors including resilience, social support, and family stability that moderate the relationship between traumatic learning conditions and academic adjustment, given that 65.1% of variance remained unexplained. Mixed-methods studies incorporating qualitative data from students, teachers, and counsellors would enrich understanding further. The influence of gender on academic adjustment also warrants dedicated empirical investigation, as male and female students may experience and respond to traumatic learning conditions in meaningfully different ways.

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