



CONFLICT-RELATED TRAUMA AND LEARNERS ASSESSMENT PERFORMANCE IN PUBLIC SENIOR SCHOOLS IN KERIO VALLEY, KENYAⁱ

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Abstract:

Recurrent cattle rustling in Kenya's Kerio Valley exposed learners to fear, bereavement and persistent insecurity, yet local evidence rarely isolated how education-related manifestations of trauma related to school assessment. This study examined the influence of conflict-related trauma on learners' assessment performance in public senior schools in Kerio Valley Sub-County. A convergent mixed-methods design combined questionnaires from 215 learners and 61 class teachers with interviews involving five principals, five parents, two chiefs and three sub-county officials, alongside a review of selected school records. Learners rated six non-diagnostic manifestations of trauma and two indicators of assessment performance on five-point scales. Descriptive statistics and simple linear regression were used for the quantitative strand, while interview and documentary evidence were analysed thematically and integrated during interpretation. Anxiety or fear was reported by 88.3% of learners, difficulty remembering learning by 87.4%, difficulty concentrating by 83.6%, loss-related distress by 82.3%, fear or tension by 80.8% and troubled behaviour by 78.5%. Teachers corroborated the pattern: all reported learner anxiety or fear, while 96.7% reported reduced concentration or memory and

ⁱ LE TRAUMATISME LIÉ AUX CONFLITS ET LA PERFORMANCE DES APPRENANTS AUX ÉVALUATIONS DANS LES ÉCOLES SECONDAIRES PUBLIQUES DE LA VALLÉE DE KERIO, AU KENYA

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withdrawal or irritability. For 207 complete learner cases, the trauma composite significantly predicted poorer assessment performance, $F(1, 205) = 52.62$, $p < .001$, $R^2 = .204$, adjusted $R^2 = .200$. Interviews and school records linked recurring fear and bereavement to weak concentration, absenteeism, reduced classroom participation and inadequate examination preparation. The findings indicated an educational pathway rather than a clinical diagnosis. Schools in recurrently insecure areas should combine security and continuity measures with trauma-sensitive counselling, teacher referral procedures, catch-up instruction and systematic monitoring of attendance and assessment trends.

Keywords: assessment performance, cattle rustling, conflict-related trauma, Kerio Valley, trauma-sensitive education

Résumé :

Les épisodes récurrents de vol de bétail dans la vallée de Kerio au Kenya ont exposé les apprenants à la peur, au deuil et à une insécurité persistante, bien que les données locales isolent rarement la manière dont les manifestations de traumatisme liées à l'éducation influencent les évaluations scolaires. Cette étude a examiné l'influence des traumatismes liés aux conflits sur la performance des apprenants aux évaluations dans les écoles secondaires publiques du sous-comté de la vallée de Kerio. Un devis de méthodes mixtes convergent a combiné des questionnaires auprès de 215 apprenants et de 61 enseignants de classe avec des entretiens impliquant cinq principaux, cinq parents, deux chefs et trois fonctionnaires de sous-comté, ainsi qu'un examen de dossiers scolaires sélectionnés. Les apprenants ont évalué six manifestations non diagnostiques de trauma et deux indicateurs de performance aux évaluations sur des échelles en cinq points. Des statistiques descriptives et une régression linéaire simple ont été utilisées pour le volet quantitatif, tandis que les données d'entretiens et documentaires ont été analysées thématiquement et intégrées lors de l'interprétation. L'anxiété ou la peur a été signalée par 88,3 % des apprenants, la difficulté à mémoriser les apprentissages par 87,4 %, la difficulté à se concentrer par 83,6 %, la détresse liée aux pertes par 82,3 %, la peur ou la tension par 80,8 % et les comportements troublés par 78,5 %. Les enseignants ont corroboré cette tendance : tous ont signalé l'anxiété ou la peur des apprenants, tandis que 96,7 % ont signalé une concentration ou une mémoire réduite ainsi qu'un repli ou une irritabilité. Pour 207 dossiers complets d'apprenants, le composite de trauma a prédit de manière significative une moins bonne performance aux évaluations, $F(1, 205) = 52,62$, $p < 0,001$, $R^2 = 0,204$, $R^2_{ajusté} = 0,200$. Les entretiens et les dossiers scolaires ont relié la peur récurrente et le deuil à une faible concentration, à l'absentéisme, à une participation réduite en classe et à une préparation inadéquate aux examens. Les résultats ont indiqué une trajectoire éducative plutôt qu'un diagnostic clinique. Les écoles situées dans des zones d'insécurité récurrente devraient associer des mesures de sécurité et de continuité à des conseils sensibles aux traumatismes, à des procédures d'orientation par

les enseignants, à un enseignement de rattrapage et à un suivi systématique de l'assiduité et des tendances des évaluations.

Mots-clés : performance aux évaluations, vol de bétail, traumatisme lié aux conflits, vallée de Kerio, éducation sensible aux traumatismes

1. Introduction

Violent conflict interrupts education not only when schools close, but also when learners remain in class while fear, loss and insecurity weaken the mental conditions needed for attention, memory and participation. Reviews of education in emergencies show that exposure to violence can affect access, continuity, wellbeing and learning at the same time (Burde et al., 2017). Research with conflict-affected children similarly associates war and political violence with psychological distress, although responses vary across individuals and social settings (Betancourt & Khan, 2008; Slone & Mann, 2016). The educational consequence is therefore best understood as a pathway: insecurity shapes emotional and cognitive functioning, which in turn can influence engagement with lessons and assessment tasks.

Schools in pastoral and agro-pastoral areas of northern Kenya face a distinctive form of recurrent insecurity linked to cattle rustling. In Kerio Valley, attacks and threats may be episodic, but their effects extend into travel routes, households and classrooms. Studies in Kenya's Northern Rift identify both displacement and trauma-sensitive educational support as important concerns (Adhola & Ajulu-Okungu, 2025). Local research has documented interrupted teaching, population movement and weakened education management in conflict-affected communities (Maina et al., 2023). Research from neighbouring Tiati has also linked cattle rustling with missed examinations, resettlement and poorer educational performance, especially among girls (Wakhisi et al., 2025). However, these studies have generally combined psychological, economic, staffing and displacement effects rather than estimating the specific relationship between trauma-related experiences and assessment performance.

The term conflict-related trauma is used cautiously in this paper. It does not indicate that participating learners received a psychiatric diagnosis. Instead, it refers to self-reported educational manifestations associated with insecurity and loss: fear or tension, loss-related distress, troubled behaviour, difficulty concentrating, anxiety or feeling scared, and difficulty remembering learning. This distinction is important because school-based research can identify barriers to learning without converting questionnaire responses into clinical labels. School-based evidence from Syria found a substantial mental-health burden after prolonged conflict (Kakaje et al., 2022), while a systematic review found that armed conflict can produce diverse psychological effects depending on exposure, protection and context (Slone & Mann, 2016).

Bronfenbrenner's bioecological perspective provides a useful explanation of the process (Bronfenbrenner, 1979). Cattle-rustling insecurity occurs in the wider

community, but reaches the learner through linked systems: family bereavement and livelihood disruption, unsafe journeys, irregular attendance, school routines, peer relations and the availability of adult support. Trauma-sensitive school frameworks similarly emphasise safety, relationships, predictable routines and coordinated support rather than treating distress as an isolated learner deficit (Chafouleas et al., 2016; Inter-agency Network for Education in Emergencies, 2024; Lembke et al., 2024).

The study addressed the question: To what extent does conflict-related trauma influence learners' assessment performance in public senior schools in Kerio Valley? It tested the null hypothesis that conflict-related trauma has no statistically significant influence on learners' assessment performance. By isolating this objective from the wider thesis, the paper contributes learner-level statistical evidence and explanatory school and community perspectives from an under-researched Kenyan conflict setting.

2. Literature review

2.1 Conflict-related trauma and learning processes

Conflict-related trauma can affect educational performance even when schools remain open. Exposure to violence, bereavement and continuing threat may weaken the attention, memory, emotional regulation and sense of safety required for classroom participation and assessment. A systematic review by Slone and Mann (2016) found that armed conflict and terrorism produced varied psychological effects among children, depending on the nature of exposure and the protective resources available to them. Betancourt and Khan (2008) likewise emphasised that the mental-health effects of armed conflict are shaped by family relationships, community support and opportunities for resilience. These findings cautioned against treating all exposed learners as clinically traumatised, but they support careful examination of observable educational manifestations such as fear, withdrawal, irritability, concentration difficulty and impaired recall.

Bronfenbrenner's ecological perspective helps explain how community insecurity becomes an educational problem (Bronfenbrenner, 1979). Cattle-rustling violence occurs outside the classroom, but its consequences pass through the learner's connected environments. Bereavement and livelihood loss affect the family; fear and unsafe travel affect attendance; disrupted routines affect the school; and limited institutional support can prolong the consequences. Trauma is therefore not only an individual emotional response. It is produced and moderated by relationships among the learner, household, school and wider community. This perspective supports the study's use of education-related indicators rather than clinical diagnosis.

2.2 International and regional evidence

International evidence consistently links prolonged conflict exposure with difficulties that can interfere with learning. Kakaje et al. (2022), in a large school-based study conducted in Syria after nine years of conflict, found that war exposure, displacement

and loss were associated with substantial psychological distress among students. The study is relevant to Kerio Valley because it shows that learners may experience cognitive and emotional strain even where schooling continues. However, the Syrian context involved a large-scale armed conflict, and its findings cannot be transferred directly to recurrent cattle-rustling settings without attention to local social and institutional conditions.

Research on education in emergencies further shows that psychological distress often interacts with disrupted attendance, weak protection and reduced instructional continuity. Burde et al. (2017) concluded that conflict affects access, wellbeing and learning through overlapping pathways rather than a single mechanism. Muthanna et al. (2022) similarly found that war influenced teaching and learning through the connected experiences of school leaders and teachers. This literature demonstrates why assessment performance should not be interpreted only as a product of individual ability: learners prepare for tests within environments shaped by security, staffing, family stability and psychosocial support.

Evidence from Africa provides a closer contextual comparison. Singh (2024) argued that violence-related stress can undermine the cognitive and emotional processes needed for learning and may help explain why educational investment does not always yield improved outcomes in high-violence settings. Such evidence supports combining academic interventions with trauma-sensitive practice. Nevertheless, much of the available African literature is conceptual or descriptive, is concentrated in primary education, or discusses trauma together with displacement and poverty. It therefore offers limited statistical evidence on the independent relationship between education-related trauma manifestations and assessment performance among senior-school learners.

2.3 Trauma-sensitive schooling

The trauma-sensitive school literature shifts attention from identifying damaged learners to creating conditions that restore safety, participation and readiness to learn. Chafouleas et al. (2016) proposed a school-wide approach that connects universal supports, targeted intervention and specialist services. A later review by Lembke et al. (2024) found that trauma-sensitive school models commonly emphasised staff awareness, supportive relationships, predictable routines and structured interventions. The INEE Minimum Standards similarly place learner wellbeing, protection, community participation and continuity of quality education within the same emergency-response framework (Inter-agency Network for Education in Emergencies, 2024). Together, these sources suggest that counselling should not operate as an isolated service. It should be linked with classroom practice, attendance monitoring, referral procedures, catch-up instruction and collaboration with families and protection agencies.

2.4 Kenyan cattle-rustling context

Kenyan evidence confirms that cattle-rustling insecurity affects schooling through interconnected psychological and institutional pathways. Maina et al. (2023) associated pastoral conflict in the Kerio Valley region with population movement, unstable school schedules and weakened education management. In Tiaty Constituency, Wakhisi et al. (2025) reported missed examinations, resettlement and poorer educational performance among girls affected by cattle rustling and recommended counselling alongside coordinated security and educational support. Adhola and Ajulu-Okungu (2025) identified trauma, teacher shortages, attendance problems and weak infrastructure as related barriers facing displaced learners in Kenya's Northern Rift Valley. These studies establish strong geographical and policy relevance, but they generally examine broad educational disruption rather than isolating the contribution of trauma-related indicators to assessment performance.

2.5 Research gap

The literature demonstrates that fear, loss and chronic insecurity can interfere with concentration, memory, behaviour, attendance and participation. It also shows that trauma-sensitive support must be connected to school continuity and community protection. Three gaps nevertheless remain. First, trauma is frequently combined with displacement, economic strain and staffing disruption, making its specific educational contribution difficult to estimate. Second, several studies use broad psychological or clinical terminology without linking non-diagnostic classroom manifestations directly to assessment outcomes. Third, evidence from Kenyan cattle-rustling settings is mainly descriptive, conceptual or focused on primary schools and particular learner groups. The present study addressed these gaps by measuring six education-related manifestations of conflict trauma among senior-school learners, testing their composite association with assessment performance and interpreting the statistical findings alongside teacher, principal, parent, community and sub-county evidence.

3. Methodology

3.1 Research design and setting

The study used a convergent mixed-methods design with quantitative dominance. Learner and teacher questionnaires, stakeholder interviews and documentary evidence from guidance and counselling records addressed the same objective and were analysed separately before integration. This design was suitable because the regression quantified the relationship between trauma manifestations and assessment performance, while qualitative evidence explained how the relationship appeared in everyday schooling. Integration followed a narrative comparison approach consistent with established mixed-methods practice (Fetters et al., 2013).

The study was conducted in 15 public senior schools administered within Kerio Valley Sub-County, Kenya. The area includes communities whose livelihoods combine

pastoralism, agro-pastoralism and small-scale farming. Exposure to insecurity varied by school location, road access and proximity to recurrent attacks. School names and precise security locations were withheld to protect participants.

3.2 Participants and sampling

The target population included 4,500 learners and 90 class teachers in the 15 schools, together with principals, parents, chiefs and officials responsible for education, teacher deployment and security. A planned sample of 240 learners was allocated equally across the schools and selected from class registers through simple random sampling. Sixty-eight class teachers were selected through proportionate stratified random sampling. Five principals, five parents, two chiefs, the Teachers Service Commission Sub-County Director, the Ministry of Education Sub-County Director and the Sub-County Commissioner were purposively selected for their role-specific knowledge.

Usable questionnaires were returned by 215 learners (89.6%) and 61 teachers (89.7%). All 15 purposively selected interview participants completed their schedules. The regression used 207 learner records with complete data on the predictor and outcome composites.

3.3 Measures and data collection

The learner questionnaire contained six five-point items for conflict-related trauma and two items for assessment performance. The trauma items measured fear or tension related to insecurity, distress following loss of a relative, troubled behaviour, concentration difficulty, anxiety or feeling scared, and memory difficulty. Assessment performance was represented by reported worsening of Continuous Assessment Test results and greater difficulty attaining good grades. Original responses were reverse-coded so that higher scores consistently indicated greater adverse experience and poorer assessment performance. These content-defined items were not treated as a diagnostic scale.

The teacher questionnaire assessed anxiety or fear, decline in concentration or memory, and withdrawal or irritability. Semi-structured interviews explored fear, concentration, attendance, classroom participation, examination preparation and available support. The document guide covered class registers, assessment records and guidance and counselling records where available. Documentary evidence was used for corroboration because completeness varied by school.

3.4 Validity, reliability and analysis

Supervisors reviewed the instruments for content coverage, clarity and alignment with the objective. A pilot in Kapyego Ward, outside the main sample, supported refinement of wording and administration. The complete learner questionnaire had a Cronbach's alpha of .805 and the complete teacher questionnaire had an alpha of .879. These coefficients applied to the full instruments; the trauma items were retained as a content-defined composite rather than presented as a clinical psychometric scale.

Frequencies, percentages, means and standard deviations described individual items. A simple linear regression tested whether the learner trauma composite predicted the assessment-performance index. Statistical significance was evaluated at $\alpha = .05$. Interview and documentary evidence were coded thematically by respondent role and compared with the quantitative results. Because the qualitative participants were purposively selected, their accounts were not converted into population percentages.

3.5 Ethical considerations

Approval and authorization were obtained through the Catholic University of Eastern Africa, the ethics review committee, the National Commission for Science, Technology and Innovation, county education and administrative offices, and participating schools. Participation was voluntary, with consent and assent procedures appropriate to respondent category. Names were not recorded on questionnaires, and reports use aggregate results or non-identifying participant roles. Questions focused on educational consequences rather than requiring unnecessary recounting of violent incidents.

4. Results

4.1 Response rates

Table 1 presents the complete response profile. Of the 240 sampled learners, 215 returned usable questionnaires, giving a response rate of 89.6%. Sixty-one of the 68 sampled class teachers participated, giving a response rate of 89.7%. All five parents, two chiefs, five principals and three sub-county officials completed their interviews. The achieved responses provided learner, classroom, household, school-management, education-administration and security perspectives for the mixed-methods analysis.

Table 1: Response rate by respondent category

Respondent category	Targeted	Obtained	Response rate (%)
Learners	240	215	89.6
Class teachers	68	61	89.7
Parents	5	5	100.0
Chiefs	2	2	100.0
Principals	5	5	100.0
TSC Sub-County Director	1	1	100.0
Ministry of Education Sub-County Director	1	1	100.0
Sub-County Commissioner	1	1	100.0

4.2 Learner socioeconomic and exposure characteristics

The complete learner profile is shown in Table 2. Females constituted 118 of the 215 learners (54.9%) and males 97 (45.1%). Among the 214 learners who reported their age, 110 (51.4%) were aged 19–20 years and 85 (39.7%) were aged 17–18 years. Most learners, 187 (87.0%), attended mixed day schools. Exposure to cattle rustling was substantial: 124 of 214 learners (57.9%) reported that it occurred very often and 31 (14.5%) reported often,

while 178 (83.2%) stated that their school had been affected. The dominance of mixed-day schooling is contextually important because learners travelled between home and school and remained directly connected to household and route insecurity.

Table 2: Socio-demographic and cattle-rustling exposure characteristics of learners

Characteristic	Category	Frequency	Percent
Gender	Male	97	45.1
	Female	118	54.9
Age (n = 214)	14–16	1	0.5
	17–18	85	39.7
	19–20	110	51.4
	21–22	18	8.4
School type	Boys' boarding	15	7.0
	Girls' boarding	13	6.0
	Mixed day	187	87.0
Conflict frequency (n = 214)	Often	31	14.5
	Very often	124	57.9
	Rare	59	27.6
School affected (n = 214)	Yes	178	83.2
	No	36	16.8

Note: Age, conflict frequency and school-affected items each had one missing learner response.

4.3 Teacher socioeconomic and exposure characteristics

Table 3 provides the full teacher profile. Thirty-six of the 61 teachers (59.1%) were male and 25 (40.9%) were female. Thirty-four (55.7%) were aged 30–39 years and 23 (37.7%) were aged 20–29 years. Thirty-two (52.5%) had five or fewer years of teaching experience, while 29 (47.5%) had six to ten years. All 61 teachers stated that cattle rustling occurred often and that their schools had been affected. Their direct classroom experience provided an informed basis for reporting changes in learner concentration, behaviour, attendance and assessment preparation.

Table 3: Socio-demographic and cattle-rustling exposure characteristics of class teachers

Characteristic	Category	Frequency	Percent
Gender	Male	36	59.1
	Female	25	40.9
Age	20–29	23	37.7
	30–39	34	55.7
	40–49	4	6.6
Teaching experience	0–5 years	32	52.5
	6–10 years	29	47.5
Conflict frequency	Often	61	100.0
School affected	Yes	61	100.0

4.4 Learner assessment performance

The complete assessment-performance results are presented in Table 4. Continuous Assessment Test results were reported to have worsened by 187 of 214 learners (87.4%),

M = 4.13 (SD = 0.73). Similarly, 184 of 213 learners (86.4%) reported greater difficulty attaining good grades, M = 4.24 (SD = 0.92). The consistency of these indicators showed that the assessment problem was visible both in reported results and in learners' perceived capacity to attain satisfactory grades. The two items formed the assessment-performance index used as the dependent variable.

Table 4: Learner responses on assessment performance

Indicator	N	Agree n	Agree (%)	M	SD
Continuous Assessment Test results worsened	214	187	87.4	4.13	0.73
Greater difficulty attaining good grades	213	184	86.4	4.24	0.92

Note: Higher means indicate a greater adverse effect on assessment performance.

4.5 Learner reported trauma manifestations

Table 5 shows consistently high endorsement of emotional, behavioural and cognitive manifestations. Anxiety or feeling scared was most prevalent (88.3%), followed by difficulty remembering learning (87.4%) and difficulty concentrating (83.6%). Troubled behaviour was the least prevalent indicator, although it was still reported by more than three-quarters of respondents. The pattern suggests that internal emotional and cognitive difficulties were more common than outward behavioural change.

Table 5: Learner responses on conflict-related trauma

Indicator	N	Agree n	Agree (%)	M	SD
Fear or tension related to insecurity	213	172	80.8	4.10	0.92
Distress after loss of a relative	215	177	82.3	4.16	0.99
Troubled behaviour	214	168	78.5	3.87	1.03
Difficulty concentrating	214	179	83.6	4.13	1.03
Anxious or scared	214	189	88.3	4.19	0.76
Difficulty remembering learning	215	188	87.4	4.10	0.75

Note: Agree combines the two agreement categories after reverse coding. Higher means indicate greater adverse experience.

4.6 Teacher corroboration

Teacher reports strengthened the learner evidence (Table 6). Every teacher reported learner anxiety or fear, and 96.7% reported both a decline in concentration or memory and withdrawal or irritability. Teachers observed these effects through classroom participation, behaviour, attendance and task completion; the findings do not indicate a clinical diagnosis.

Table 6: Teacher responses on conflict-related trauma

Indicator	N	Agree n	Agree (%)	M	SD
Anxiety or fear among learners	61	61	100.0	4.41	0.50
Decline in concentration or memory	61	59	96.7	4.37	0.57
Withdrawal or irritability	61	59	96.7	4.30	0.82

Note: Teacher data were used descriptively to corroborate learner reports.

4.7 Influence of trauma on assessment performance

The regression model was statistically significant, $F(1, 205) = 52.62$, $p < .001$ (Table 7). Conflict-related trauma explained 20.4% of the variance in the assessment-performance index, with an adjusted R^2 of .200. The positive direction of the coded relationship indicated that greater reported trauma manifestations were associated with poorer reported assessment performance. The null hypothesis was therefore rejected.

Table 7: Regression model for conflict-related trauma and assessment performance

N	R ²	Adjusted R ²	F (df)	p
207	.204	.200	52.62 (1, 205)	< .001

Outcome: assessment-performance index based on worsened Continuous Assessment Test results and difficulty attaining good grades.

The model indicates a meaningful relationship, but it should not be interpreted as proof that trauma alone caused the observed assessment difficulty. The cross-sectional, self-report design does not establish temporal order, and approximately four-fifths of outcome variance remained outside this bivariate model. Teacher transfers, displacement, economic strain, prior attainment, household support and school-level conditions are plausible additional influences.

4.8 Integrated qualitative findings

Interviews provided a consistent explanation for the statistical pattern. Principals described learners who attended school but struggled to focus, participate or prepare for examinations during periods of recurrent insecurity. Education and security officials similarly connected fear with irregular attendance and reduced learner focus. Parent and chief accounts located these experiences within family loss, community threats and uncertain travel to school. Guidance and counselling records, where available, linked bereavement and conflict exposure with concentration difficulty, absenteeism, reduced participation and declining assessment scores. Comparable research with teachers and school leaders has shown that conflict effects interact across educational processes rather than remaining confined to one outcome (Muthanna et al., 2022).

Across sources, four linked educational mechanisms emerged. First, recurrent fear occupied attention that would otherwise support lesson engagement. Second, concentration and memory difficulties limited retention and retrieval of taught content. Third, withdrawal, irritability and irregular attendance reduced participation and access to instruction. Fourth, bereavement and ongoing insecurity weakened examination preparation. The convergence of learner, teacher, stakeholder and documentary evidence increased confidence that the regression captured an educationally visible process rather than an isolated questionnaire pattern.

5. Discussion

The study found that conflict-related trauma was both prevalent and significantly associated with poorer assessment performance. Emotional and cognitive manifestations were especially prominent: close to nine in ten learners reported anxiety or memory difficulty, while more than four in five reported concentration difficulty. The teacher data strongly corroborated these experiences. The significant regression, explaining 20.4% of variance, shows that trauma-related manifestations constitute an important assessment burden in the Kerio Valley schools studied.

The findings align with research showing substantial distress among school students after prolonged exposure to conflict (Kakaje et al., 2022). They also support systematic evidence that war, terrorism and armed conflict can affect children through multiple psychological pathways rather than one uniform response (Slone & Mann, 2016). South African evidence similarly explains how violence-related stress can undermine learning processes even where education investment is substantial (Singh, 2024). The present study adds an educationally specific contribution by linking non-diagnostic manifestations—fear, distress, behaviour, concentration, anxiety and memory—to a school assessment outcome in a Kenyan cattle-rustling context.

The pattern also fits a bioecological interpretation. Learners' difficulties cannot be reduced to personal weakness. Community insecurity crosses into the microsystems of home and school through bereavement, unsafe travel, disrupted routines and strained relationships (Bronfenbrenner, 1979). The overlap of emotional, cognitive, attendance and participation mechanisms explain why providing learning materials alone may be insufficient. Restoring predictable school routines and trusted adult support is part of protecting learning.

The local evidence is consistent with studies of cattle-rustling-affected education in Kenya. Research in Kerio Valley has documented conflict-related disruption in education management (Maina et al., 2023), while evidence from Tiaty links cattle rustling with missed examinations, resettlement and poorer educational performance (Wakhisi et al., 2025). This paper refines that literature by isolating trauma-related manifestations from other pathways. It also supports trauma-sensitive school approaches that prioritise safety, relationships, staff preparedness and referral networks (Chafouleas et al., 2016; Inter-agency Network for Education in Emergencies, 2024; Lembke et al., 2024).

The effect size warrants attention but should be interpreted proportionately. An R^2 of .204 means that the trauma composite captured a substantial share, not the whole, of assessment variation. The result is based on contemporaneous self-reports and a two-item outcome rather than independently standardised examination scores. Causal language would therefore exceed the design. The strongest defensible conclusion is that greater reported conflict-related trauma was associated with poorer reported assessment performance and that multiple qualitative sources described plausible educational mechanisms for that association.

6. Recommendations

Schools in recurrently insecure settings need a combined education, psychosocial and protection response.

First, teachers should receive practical training to recognise changes in concentration, attendance, memory, participation and behaviour and to respond without stigmatising learners. The purpose is early educational support and referral, not informal diagnosis.

Second, schools should establish confidential referral pathways linking guidance and counselling personnel with qualified health and child-protection services. Support should be matched to need: predictable classroom routines and supportive teacher contact for all learners, small-group psychosocial support for those with continuing difficulty, and specialist referral where risk or severe distress is identified.

Third, assessment recovery should be integrated with psychosocial support. Catch-up lessons, flexible deadlines after acute incidents, structured revision, attendance follow-up and supported re-entry can reduce the academic consequences of missed learning. Assessment data should be reviewed alongside attendance and counselling records to identify deterioration early while protecting confidentiality.

Fourth, education authorities, security administrators and community leaders should coordinate continuity plans before crises intensify. Communication routes, temporary learning arrangements, safe transport decisions and timely information for families can reduce uncertainty. Global education evidence shows that migration and displacement require systems that protect inclusion and continuity (UNESCO, 2019). School support should be connected to broader peace-building and protection measures because schools cannot independently remove the community conditions producing recurrent fear.

7. Conclusion

Conflict-related trauma was widespread among learners in the sampled Kerio Valley public senior schools and was significantly associated with poorer assessment performance. Learners most often reported anxiety, memory difficulty and concentration difficulty, and teachers independently observed anxiety, cognitive decline and withdrawal or irritability. The regression explained 20.4% of the variation in the assessment-performance index, while interviews and school records identified plausible pathways through attention, memory, attendance, participation and examination preparation. These findings support trauma-sensitive education as an assessment-protection strategy. Security action remains essential, but schools also need trained staff, clear referral systems, catch-up instruction and coordinated continuity planning. Future longitudinal research should use standardised assessment records, validated wellbeing measures and multilevel models to clarify timing, causality and variation across schools.

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Conflict of Interest Statement

The authors declare no conflicts of interest.

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