Emergency Preparedness and Transport Safety Standards as Predictors of Well-Being among Public Secondary School Communities in West Pokot County, Kenya

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ABSTRACT

Emergency preparedness and transport safety are critical dimensions of school safety that protect learners, ensure continuity of education, and promote the well-being of school communities. Despite the existence of national school safety policies in Kenya, implementation of these standards remains inconsistent, particularly in geographically marginalized counties where environmental, infrastructural, and resource constraints heighten learners' exposure to safety risks. This study examined the influence of emergency preparedness and transport safety standards on the well-being of public secondary school communities in West Pokot County, Kenya. Guided by the Health Belief Model, the study adopted a convergent parallel mixed-methods design. Quantitative and qualitative data were collected concurrently from a sample of 586 respondents comprising principals, members of Boards of Management, County and Sub-County education officials, Quality Assurance and Standards Officers, and National Government Constituencies Development Fund (NG-CDF) education committee members using questionnaires, interviews, observation checklists, and document analysis. Quantitative data were analyzed using descriptive statistics, Pearson correlation, and multiple linear regression, while qualitative data were analyzed thematically and integrated during interpretation. The findings revealed that emergency preparedness safety standards significantly enhanced school community well-being through improved emergency planning, disaster preparedness, first-aid readiness, and institutional response mechanisms. Transport safety standards also had a significant positive influence by promoting safer travel to and from school, although implementation was constrained by poor road infrastructure, long travel distances, and inadequate transport facilities. Qualitative findings reinforced the quantitative results by emphasizing the importance of continuous safety training, stakeholder collaboration, and regular monitoring in strengthening school safety. The study concludes that sustained investment in emergency preparedness and transport safety is essential for enhancing the physical, psychological, and social well-being of public secondary school communities in West Pokot County. The findings provide context-specific evidence to inform school safety policy implementation, institutional planning, and resource allocation in West Pokot County and other settings with similar characteristics.

Keywords: Emergency preparedness; transport safety; school safety standards; school community well-being; public secondary schools; West Pokot County; Kenya.

INTRODUCTION

Schools have a fundamental responsibility not only to provide quality education but also to ensure the safety and well-being of learners, teachers, and other members of the school community. Effective emergency preparedness and transport safety are essential components of safe learning environments because they minimize disruptions to education, reduce exposure to hazards, and enhance institutional resilience. Emergency preparedness enables schools to anticipate, prevent, respond to, and recover from disasters such as fires, disease outbreaks, natural hazards, and violence, while transport safety protects learners from road traffic injuries and other travel-related risks that may hinder school attendance and academic participation (UNESCO, 2021).

Globally, the increasing frequency of climate-related disasters, disease outbreaks, school fires, and other emergencies has heightened the need for comprehensive school safety systems. International organizations,

including UNESCO, the World Health Organization (WHO), UNICEF, and the United Nations Office for Disaster Risk Reduction (UNDRR), advocate for integrated approaches that combine disaster risk reduction, emergency preparedness, safe learning environments, and institutional resilience. The Comprehensive School Safety Framework identifies school disaster management as a key pillar for protecting learners, reducing disaster-related disruptions, and ensuring continuity of education during emergencies (UNDRR, 2017). Evidence indicates that schools with established emergency response plans, functional disaster management committees, routine emergency drills, and adequately trained personnel are better prepared to manage crises while minimizing injuries and psychological distress.

Transport safety remains equally important because many learners are exposed to significant risks while travelling to and from school. According to the World Health Organization (2023), road traffic injuries remain among the leading causes of death and disability among children and adolescents globally. In many low- and middle-income countries, inadequate road infrastructure, unsafe pedestrian facilities, poorly maintained vehicles, excessive speeding, and long walking distances increase learners' vulnerability to road traffic accidents. Consequently, schools are encouraged to strengthen road safety education, collaborate with transport stakeholders, and implement measures that promote safe travel and uninterrupted participation in education.

Despite these international efforts, implementation of emergency preparedness and transport safety standards remains inconsistent across many developing countries, particularly in Sub-Saharan Africa. Limited financial resources, inadequate emergency infrastructure, weak institutional capacity, insufficient training, and poor transport networks continue to constrain effective implementation of school safety policies. In rural communities, learners frequently travel long distances on foot or rely on motorcycles and informal public transport while navigating hazardous roads, thereby increasing their exposure to injuries, absenteeism, and psychosocial stress.

In Kenya, school safety is guided by several policies and legal frameworks, including the *Safety Standards Manual for Schools* (Ministry of Education, 2008), the *Basic Education Act* (2013), and national guidelines on disaster preparedness and emergency management in educational institutions. These policies require schools to establish emergency response plans, conduct regular emergency drills, maintain appropriate emergency equipment, and implement transport safety measures. However, implementation varies considerably across counties because of disparities in financial resources, infrastructure, technical capacity, and local environmental conditions.

West Pokot County presents a unique context for examining school safety because of its rugged terrain, dispersed settlements, recurrent droughts, poor road infrastructure, and periodic insecurity in some areas. These conditions present considerable challenges to emergency preparedness and learner transport safety, as many learners travel long distances through difficult terrain to access school. In contrast, schools operate with limited resources to support safety Programs and emergency response systems. Understanding how emergency preparedness and transport safety standards influence the well-being of school communities in such settings is therefore essential for strengthening educational resilience and improving learner safety.

School community well-being extends beyond protection from physical harm to include psychological security, emotional stability, social connectedness, and confidence in participating in school activities. Schools that effectively implement emergency preparedness measures are better positioned to reduce fear and uncertainty, respond efficiently during crises, and sustain teaching and learning. Likewise, effective transport safety measures enhance learner attendance, reduce accident risks, strengthen parental confidence, and contribute to a safe and supportive learning environment.

Although previous studies have examined emergency preparedness, disaster risk management, transport safety, and learner protection, these areas have largely been investigated independently. Consequently, limited empirical evidence exists on the combined influence of emergency preparedness safety standards and transport safety standards on the well-being of public secondary school communities, particularly within geographically marginalized counties such as West Pokot. Furthermore, relatively few studies have employed convergent mixed-methods approaches that integrate quantitative findings with qualitative evidence from interviews, observations, and document analysis to explain how these safety standards are implemented in practice. This

gap limits understanding of the institutional and contextual factors that influence the implementation of school safety and highlights the need for context-specific evidence.

This study, therefore, examined the influence of emergency preparedness safety standards and transport safety standards on the well-being of public secondary school communities in West Pokot County, Kenya, using a convergent parallel mixed-methods design. By integrating quantitative and qualitative evidence, the study provides context-specific insights to support school safety policy implementation, institutional planning, and resource allocation within West Pokot County while offering lessons that may inform similar resource-constrained settings facing comparable school safety challenges.

LITERATURE REVIEW

Theoretical Framework

This study was guided by the Health Belief Model (HBM) developed by Rosenstock (1974) and later expanded by Becker (1974). The model explains that individuals are more likely to adopt protective behaviors when they perceive themselves to be susceptible to hazards, recognize the seriousness of potential consequences, believe that preventive measures are effective, and perceive few barriers to implementing those measures. Although initially developed to explain individual health behavior, the model has increasingly been applied in organizational and institutional settings where policies and preventive practices influence health, safety, and well-being.

Within school environments, emergency preparedness and transport safety standards represent institutional preventive strategies aimed at reducing exposure to hazards before they occur. Emergency preparedness measures including disaster management plans, emergency drills, evacuation procedures, first-aid preparedness, emergency communication systems, and safety committees enable schools to anticipate, respond to, and recover effectively from emergencies. Likewise, transport safety interventions such as road safety education, safe school transport arrangements, vehicle inspection, learner supervision, and collaboration with transport authorities reduce learners' exposure to road traffic injuries and travel-related risks.

According to the Health Belief Model, consistent implementation of these preventive measures enhances perceptions of safety, promotes responsible safety behavior, reduces fear and uncertainty, and strengthens confidence among learners, teachers, parents, and other stakeholders. Consequently, schools become better prepared to protect members of the school community during emergencies while promoting educational continuity and resilience. The model therefore provides an appropriate theoretical framework for explaining how emergency preparedness safety standards and transport safety standards contribute to the physical, psychological, and social well-being of public secondary school communities.

Emergency Preparedness Safety Standards and School Community Well-being

Emergency preparedness has become a central component of comprehensive school safety because educational institutions increasingly face diverse risks arising from fires, disease outbreaks, natural disasters, technological accidents, insecurity, and other emergencies. Effective preparedness enables schools to protect lives, minimize injuries, reduce disruption of learning, and facilitate rapid recovery following emergencies. The Comprehensive School Safety Framework identifies school disaster management as one of the three core pillars necessary for creating resilient education systems capable of sustaining learning during crises (United Nations Office for Disaster Risk Reduction (UNDRR), 2017).

International evidence demonstrates that schools with comprehensive emergency preparedness systems are better able to respond to emergencies and maintain educational continuity. Such systems typically include written emergency response plans, functional disaster management committees, regular evacuation drills, accessible emergency equipment, trained personnel, and effective communication mechanisms. UNESCO (2021) similarly emphasizes that emergency preparedness strengthens institutional resilience by reducing vulnerability to disasters while enhancing learners' confidence, psychological security, and participation in school activities.

Despite these global efforts, implementation of emergency preparedness standards remains inconsistent in many developing countries. Limited financial resources, inadequate infrastructure, insufficient emergency equipment, and inadequate staff training continue to constrain preparedness initiatives. In many African countries, emergency drills are conducted irregularly, disaster response planning remains inadequate, and emergency equipment is poorly maintained, leaving schools vulnerable to preventable emergencies that negatively affect learner safety and educational outcomes.

In Kenya, the Ministry of Education has developed several policy frameworks to strengthen emergency preparedness within educational institutions, including the *Safety Standards Manual for Schools* (Ministry of Education, 2008). These guidelines require schools to establish emergency response plans, maintain emergency equipment, conduct routine emergency drills, and create disaster management committees. However, implementation varies considerably across regions because of disparities in financial resources, infrastructure development, institutional capacity, and local environmental conditions.

West Pokot County presents a particularly relevant context because schools operate under unique geographical and socio-economic conditions characterized by rugged terrain, dispersed settlements, recurrent droughts, periodic insecurity, and limited emergency response infrastructure. Although investments have been made to improve school safety, limited empirical evidence exists regarding how emergency preparedness contributes to the broader well-being of school communities within such marginalized settings. This study therefore extends existing knowledge by examining emergency preparedness using an integrated mixed-methods approach that combines quantitative findings with interviews, observations, and document analysis.

Transport Safety Standards and School Community Well-being

Transport safety constitutes an equally important dimension of school safety because learners are exposed to numerous hazards while travelling to and from school. The World Health Organization (2023) identifies road traffic injuries as one of the leading causes of death among children and adolescents worldwide, with low- and middle-income countries bearing the greatest burden. Consequently, ensuring safe travel to and from school has become an important public health and educational priority.

Transport safety encompasses a broad range of preventive measures, including safe school transport systems, compliance with traffic regulations, learner road safety education, supervision during travel, safe pedestrian crossings, designated pick-up and drop-off points, routine vehicle inspection, and collaboration between schools, transport providers, parents, and law enforcement agencies. Effective implementation of these measures reduces transport-related accidents, minimizes injuries, improves school attendance, and enhances parental confidence in the safety of educational institutions.

Across many African countries, implementation of transport safety measures continues to be constrained by poor road infrastructure, inadequate regulation of public transport, unsafe motorcycles, limited pedestrian facilities, and long travel distances to school. These challenges are particularly evident in rural and marginalized communities, where learners frequently walk long distances through hazardous terrain or rely on informal transport systems. Such conditions increase vulnerability to accidents, contribute to absenteeism, generate anxiety among learners and parents, and reduce effective participation in educational activities.

Kenya has introduced road safety regulations and school transport guidelines aimed at improving learner protection. Nevertheless, implementation remains uneven, particularly in rural counties where poor road networks, inadequate transport services, and limited enforcement of traffic regulations continue to expose learners to unnecessary risks. West Pokot County exemplifies these challenges because many learners travel considerable distances through rugged terrain using motorcycles or walking along roads with limited pedestrian infrastructure.

Although transport safety has received increasing policy attention, existing studies have largely focused on road traffic injuries, transport systems, or learner mobility rather than examining how transport safety contributes to the broader well-being of school communities. Furthermore, relatively few studies have integrated statistical evidence with qualitative perspectives obtained from school administrators, education officers, and community

stakeholders. This study therefore contributes additional empirical evidence by examining transport safety within the broader framework of school community well-being.

Research Gap

Although substantial literature exists on school emergency management and learner transport safety, several important knowledge gaps remain. First, previous studies have generally examined emergency preparedness and transport safety as separate dimensions of school safety, with limited attention given to their combined influence on the overall well-being of school communities. Second, existing research has focused predominantly on accident prevention, disaster response, and learner protection while paying comparatively less attention to broader dimensions of well-being, including psychological security, emotional resilience, social interactions, and confidence among learners, teachers, and other members of school communities.

Methodologically, much of the existing evidence has relied primarily on quantitative survey approaches, providing limited opportunities to triangulate findings using interviews, direct observations, and document analysis. Consequently, there remains limited empirical understanding of how school stakeholders experience, implement, and sustain emergency preparedness and transport safety interventions within resource-constrained educational settings. Furthermore, empirical evidence from geographically marginalized counties such as West Pokot remains scarce despite the unique environmental, infrastructural, and socio-economic challenges that influence the implementation of school safety standards.

This study addressed these conceptual, methodological, and contextual gaps by examining the combined influence of emergency preparedness safety standards and transport safety standards on the well-being of public secondary school communities in West Pokot County, Kenya. Using a convergent parallel mixed-methods research design, the study integrated quantitative findings with qualitative evidence from interviews, observations, and document analysis to provide a comprehensive understanding of how these school safety standards contribute to the physical, psychological, and social well-being of school communities.

METHODOLOGY

Research Design

This study adopted a convergent parallel mixed-methods research design to examine the influence of emergency preparedness safety standards and transport safety standards on the well-being of public secondary school communities in West Pokot County, Kenya. In this design, quantitative and qualitative data were collected concurrently, analyzed independently, and integrated during interpretation.

Quantitative data were used to establish the magnitude and statistical significance of the relationships among the study variables, while qualitative data obtained through interviews, observations, and document analysis provided contextual explanations that complemented the quantitative findings. Integration of the two strands enhanced the credibility, comprehensiveness, and validity of the findings through methodological triangulation (Creswell & Plano Clark, 2018).

Study Area

The study was conducted in West Pokot County, Kenya, a predominantly rural and semi-arid county characterized by rugged terrain, dispersed settlements, recurrent drought, periodic insecurity, and inadequate transport and educational infrastructure.

These contextual characteristics present unique challenges to school emergency preparedness and learner transport safety, making the county an appropriate setting for examining the relationship between school safety standards and the well-being of public secondary school communities. Since the study was confined to one county, the findings should be interpreted within the context of public secondary schools in West Pokot County and may only be transferable to settings with similar geographical and socio-economic characteristics.

Target Population

The target population comprised 2,370 respondents drawn from stakeholders directly involved in school safety implementation and educational management. These included 384 principals, 1,920 members of Boards of Management (BOM), 16 County and Sub-County Directors of Education and Quality Assurance and Standards Officers, and 50 National Government Constituencies Development Fund (NG-CDF) education committee members responsible for supporting school safety initiatives and infrastructure development.

Sample Size and Sampling Procedures

A sample size of 586 respondents was determined using Yamane's (1967) sample size determination formula at a 95% confidence level and a 5% margin of error. The sample comprised 196 principals, 331 members of Boards of Management, 15 County and Sub-County Directors of Education and Quality Assurance and Standards Officers, and 44 NG-CDF education committee members.

Stratified random sampling was used to select principals and members of the Boards of Management. The target population was first grouped into homogeneous strata based on respondents' categories, after which proportionate random sampling was employed to ensure adequate representation from each stratum.

Purposive sampling was used to select County and Sub-County Directors of Education, Quality Assurance and Standards Officers, and NG-CDF education committee members because of their specialized knowledge, supervisory responsibilities, and direct involvement in implementing school safety policies, emergency preparedness programs, and transport safety initiatives. Their inclusion enabled the study to obtain rich contextual information that could not be captured through probability sampling.

Respondents were eligible to participate if they had served in their respective institutions for at least one academic year and were directly involved in school safety management or educational administration. Individuals without direct responsibility for school safety implementation were excluded from the study.

Data Collection Instruments

Four complementary instruments were used to collect data.

A structured questionnaire was administered to principals and members of the Boards of Management to obtain quantitative data on emergency preparedness safety standards, transport safety standards, and school community well-being. Responses were measured on a five-point Likert scale ranging from Strongly Disagree (1) to Strongly Agree (5).

Semi-structured interview guides were administered to County and Sub-County Directors of Education, Quality Assurance and Standards Officers, and NG-CDF education committee members to obtain in-depth information on emergency preparedness planning, disaster response practices, transport safety management, implementation challenges, and strategies for improving learner safety.

Observation checklists were used to verify the availability and condition of emergency preparedness facilities, including fire extinguishers, evacuation routes, assembly points, first-aid facilities, emergency signage, designated boarding points, pedestrian safety measures, and the condition of school transport facilities.

Document analysis checklists were used to examine emergency preparedness plans, school safety committee records, fire drill reports, transport safety policies, accident records, and other institutional documents to verify compliance with national school safety standards.

Validity and Reliability

Content validity of the research instruments was established through expert review by university supervisors and specialists in educational management, monitoring and evaluation, and school safety. The experts assessed the

relevance, clarity, and adequacy of the questionnaire items and interview guides in measuring the study variables. Their recommendations informed revision of the instruments before the main data collection.

Reliability was assessed through a pilot study conducted in public secondary schools outside West Pokot County but with characteristics comparable to those of the study area. Internal consistency was evaluated using Cronbach's alpha coefficient. All study constructs recorded reliability coefficients above the recommended threshold of 0.70, indicating satisfactory internal consistency (Hair et al., 2022). Feedback from the pilot study was also used to refine the wording, sequencing, and clarity of the research instruments.

Data Collection Procedure

Following ethical approval and research authorization, permission to conduct the study was obtained from the County Director of Education and the principals of the participating public secondary schools. Structured questionnaires were administered to the sampled principals and members of the Boards of Management, while interviews were conducted with purposively selected education officials. Observation checklists and document analysis were undertaken concurrently to verify information obtained through questionnaires and interviews. Completed questionnaires were checked for completeness before coding and analysis.

Data Analysis

Quantitative data were coded and analyzed using the Statistical Package for the Social Sciences (SPSS). Descriptive statistics, including frequencies, percentages, means, and standard deviations, were used to summarize the data. Pearson's correlation and multiple linear regression analyses were employed to determine the relationships between emergency preparedness safety standards, transport safety standards, and school community well-being. Qualitative data were analyzed thematically, and the findings were integrated with the quantitative results during interpretation to provide a comprehensive understanding of the study phenomenon.

Ethical Considerations

Ethical approval and research authorization were obtained from the relevant university ethics committee and the National Commission for Science, Technology and Innovation (NACOSTI) before commencement of the study. Permission was also obtained from the County Director of Education and the principals of the participating schools. Participation was voluntary, informed consent was obtained from all respondents, and confidentiality and anonymity were maintained throughout the study. Data collected were used solely for academic purposes.

RESULTS AND DISCUSSION

Emergency Preparedness Safety Standards and School Community Well-being

The first objective examined the influence of emergency preparedness safety standards on the well-being of public secondary school communities in West Pokot County. Respondents assessed various aspects of emergency preparedness using a five-point Likert scale. The findings revealed that emergency preparedness safety standards were implemented at a relatively high level across the sampled schools, indicating substantial institutional commitment to disaster risk reduction and learner protection.

Higher ratings were recorded for the availability of documented emergency response plans, periodic fire drills, and basic emergency awareness programs, suggesting that many schools had institutionalized essential emergency management practices in line with the Ministry of Education's Safety Standards Manual. However, comparatively lower ratings for refresher training, emergency simulation exercises, and adequacy of emergency response equipment indicate that implementation remains uneven. These findings suggest that while schools have established emergency preparedness structures, operational readiness and sustainability require further strengthening.

The quantitative findings were corroborated by qualitative evidence. A Quality Assurance and Standards Officer noted that although emergency preparedness plans are routinely developed because they are required during

school inspections, the frequency of drills and staff training largely depends on the financial capacity of individual schools. Similarly, a principal observed that regular fire drills were conducted, but acquiring additional emergency equipment remained difficult because of budgetary constraints. These responses suggest that policy compliance has improved, although resource limitations continue to constrain effective implementation.

Observational data further confirmed these findings. Most schools displayed evacuation routes and emergency contact information, while fire extinguishers were available in many institutions. Nevertheless, several schools had inadequately serviced firefighting equipment, poorly marked assembly points, obstructed evacuation routes, and insufficient emergency signage. Document analysis similarly showed that although emergency preparedness committees and fire drill reports existed in many schools, documentation relating to routine equipment inspection, simulation exercises, and follow-up actions after emergency drills was inconsistent.

Collectively, these findings indicate that emergency preparedness has become an integral component of school safety management in public secondary schools. However, variations in institutional capacity, financial resources, and technical support continue to influence the extent to which schools achieve full compliance with national safety standards.

The findings are consistent with the Health Belief Model (HBM), which posits that preventive interventions reduce perceived vulnerability to hazards and encourage protective behavior. Schools that maintain emergency response plans, conduct routine drills, and provide emergency equipment create environments in which learners and staff perceive greater safety and confidence in the institution's ability to respond to emergencies. Consequently, emergency preparedness contributes not only to physical protection but also to psychological security and organizational resilience.

The findings further support the Comprehensive School Safety Framework, which identifies school disaster management as a critical pillar for ensuring safe and resilient learning environments (UNDRR, 2017). Similarly, UNESCO (2021) emphasizes that preparedness planning, routine safety drills, and emergency response capacity strengthen institutional resilience while ensuring continuity of learning during crises. Unlike many previous studies that have primarily focused on compliance with emergency regulations, the present study demonstrates that effective emergency preparedness enhances learner confidence, emotional well-being, institutional resilience, and the overall well-being of school communities.

Overall, the findings demonstrate that strengthening emergency preparedness safety standards enhances institutional readiness, minimizes vulnerability to emergencies, and creates safer and more supportive learning environments that promote the well-being of learners, teachers, and the wider school community.

Transport Safety Standards and School Community Well-being

The second objective sought to determine the influence of transport safety standards on the well-being of public secondary school communities in West Pokot County. Respondents evaluated several indicators relating to transport safety, including vehicle maintenance, driver competence, compliance with traffic regulations, learner supervision during travel, and road safety awareness.

The findings revealed that transport safety standards were implemented at moderate to high levels across the sampled schools. Higher ratings were recorded for driver licensing, learner supervision during school travel, and compliance with basic traffic regulations, suggesting that schools have adopted important measures to safeguard learners during transportation. However, lower ratings for routine vehicle maintenance, road safety education programs, availability of emergency transport equipment, and regular inspection of school vehicles indicate that implementation remains inconsistent.

These findings suggest that although considerable progress has been made in promoting transport safety, financial constraints, inadequate transport infrastructure, and the geographical characteristics of West Pokot County continue to limit effective implementation.

Interview findings reinforced these observations. One education officer explained that while schools generally ensure that drivers possess valid licenses, routine maintenance of school vehicles remains costly, particularly for institutions operating with limited financial resources. A school principal further noted that many learners travel long distances through difficult terrain, and during rainy seasons, deteriorating road conditions significantly increase transport-related risks and negatively affect school attendance. These perspectives demonstrate that transport safety extends beyond compliance with vehicle regulations to encompass broader contextual factors such as road infrastructure, geographical accessibility, and learner travel conditions.

Observational findings confirmed that school vehicles generally complied with basic safety requirements. Nevertheless, variations were observed in vehicle maintenance standards, availability of first-aid kits, emergency exits, seating conditions, and safety signage. Schools located in remote areas experienced greater transport challenges because of poor road networks, seasonal inaccessibility, and difficult terrain. Document analysis further revealed that while schools maintained driver documentation, transport authorization records, and vehicle inspection certificates where transport services existed, routine maintenance schedules, transport risk assessments, and road safety awareness records were inconsistently documented.

These findings demonstrate that transport safety is an important but frequently underemphasized dimension of school safety management. Effective transport systems reduce travel-related risks, improve punctuality and attendance, strengthen parental confidence, and enhance learners' physical and psychological well-being.

The findings support the Health Belief Model by demonstrating that safe transport practices reduce perceived travel-related risks while encouraging confidence among learners, parents, and school personnel. Schools that implement transport safety measures create safer educational environments that support both physical protection and emotional security.

The findings are also consistent with UNESCO (2021), which recognizes safe access to schools as an essential component of learner protection and educational continuity. Likewise, the Comprehensive School Safety Framework emphasizes that effective school safety should address hazards encountered both within school compounds and during travel to and from school (UNDRR, 2017). The present study extends this evidence by demonstrating that transport safety contributes not only to accident prevention but also to improved attendance, reduced anxiety, stronger parental trust, and enhanced participation in educational activities, particularly within geographically marginalized counties such as West Pokot.

Overall, the findings indicate that strengthening transport safety standards contributes significantly to resilient school environments by minimizing travel-related risks, improving learner access to education, and enhancing the overall well-being of school communities.

Multiple Regression Analysis

Multiple linear regression analysis was conducted to assess the combined influence of emergency preparedness and transport safety standards on the well-being of public secondary school communities. The regression model was statistically significant ($p < .05$), indicating that the two independent variables jointly explained a significant proportion of the variation in school community well-being.

Emergency preparedness safety standards emerged as the stronger predictor of well-being, suggesting that schools with higher levels of preparedness reported greater physical safety, psychological security, institutional confidence, and organizational resilience. The stronger predictive effect may be attributed to the direct role of preparedness in strengthening institutional capacity to anticipate, respond to, and recover from emergencies while minimizing disruption to teaching and learning. Transport safety standards also made a statistically significant positive contribution to school community well-being, although the magnitude of the effect was comparatively smaller. This finding demonstrates that safe learner transportation complements emergency preparedness by reducing travel-related risks and promoting continuous participation in education.

Qualitative evidence strengthened the interpretation of the regression results. Interview respondents consistently emphasized that preparedness planning, routine emergency drills, transport supervision, stakeholder

collaboration, and adherence to safety procedures enhanced confidence in school safety. Observation schedules and document analysis similarly confirmed that schools demonstrating stronger implementation of emergency preparedness and transport safety standards generally exhibited better compliance with national safety guidelines and provided safer learning environments.

The regression findings support the Health Belief Model by demonstrating that institutional investment in preventive safety measures strengthens perceptions of safety, encourages protective behavior, and promotes healthier educational environments. They also reinforce international school safety frameworks, which advocate integrated implementation of emergency preparedness and transport safety as complementary strategies for enhancing educational resilience.

Overall, the regression analysis demonstrates that emergency preparedness and transport safety standards work synergistically to strengthen institutional resilience, reduce vulnerability to preventable risks, promote educational continuity, and enhance the physical, psychological, and social well-being of public secondary school communities in West Pokot County.

CONCLUSION, RECOMMENDATIONS, STUDY LIMITATIONS AND SUGGESTIONS FOR FURTHER RESEARCH

Conclusion

This study examined the influence of emergency preparedness safety standards and transport safety standards on the well-being of public secondary school communities in West Pokot County, Kenya, using a convergent parallel mixed-methods design. By integrating quantitative findings with evidence from interviews, observations, and document analysis, the study provided a comprehensive assessment of how these dimensions of school safety contribute to safe, resilient, and supportive learning environments.

The findings demonstrate that public secondary schools have made notable progress in implementing emergency preparedness measures through the development of emergency response plans, the establishment of safety committees, the conduct of emergency drills, and the provision of basic firefighting and first-aid facilities. However, disparities in implementation were evident across schools, particularly regarding routine emergency training, maintenance of emergency equipment, simulation exercises, and periodic review of emergency preparedness plans. These variations were largely attributed to financial constraints, limited technical capacity, and inconsistent monitoring of compliance with national school safety standards.

The study further established that transport safety standards contribute significantly to the well-being of school communities by promoting safer access to education and reducing travel-related risks. Nevertheless, transport safety remains a major challenge for schools located in geographically marginalized areas where poor road infrastructure, long travel distances, inadequate pedestrian facilities, and limited transport resources expose learners to avoidable risks.

Regression analysis confirmed that both emergency preparedness safety standards and transport safety standards significantly predict school community well-being, with emergency preparedness emerging as the stronger predictor. These findings suggest that schools with well-established emergency response systems are better positioned to safeguard learners and staff, strengthen institutional resilience, minimize disruption during emergencies, and foster greater psychological security and confidence within the school community. Although transport safety demonstrated a comparatively smaller effect, it remains an indispensable component of learner protection because safe travel to and from school is fundamental to educational participation and continuity.

Overall, the study concludes that strengthening emergency preparedness and transport safety should not be viewed as separate interventions but as complementary components of an integrated school safety system. Sustainable improvement in school community well-being therefore requires continuous investment in emergency planning, transport safety management, institutional capacity building, stakeholder collaboration, and regular monitoring to ensure effective implementation of national school safety standards.

Recommendations

Based on the study findings, the following recommendations are proposed:

1. **Ministry of Education:** Strengthen the implementation of emergency preparedness standards by institutionalizing regular emergency drills, periodically reviewing emergency response plans, providing continuous safety training for school personnel, and ensuring routine inspection and maintenance of emergency equipment in accordance with the *Safety Standards Manual for Schools*.

2. **County Governments and National Government Agencies:** Prioritize investment in school-related road infrastructure by improving access roads, constructing pedestrian walkways, installing road safety signage, and providing safe crossing points, particularly in remote and high-risk areas of West Pokot County.

3. **Boards of Management and School Principals:** Establish sustainable school safety management systems through routine inspection and maintenance of emergency facilities, regular review of disaster preparedness plans, enforcement of transport safety procedures, and allocation of adequate financial and material resources to support school safety programs.

4. **Quality Assurance and Standards Officers:** Strengthen monitoring and evaluation of emergency preparedness and transport safety by conducting periodic compliance audits, providing technical support to schools, and ensuring systematic follow-up of recommendations arising from school safety inspections.

5. **Parents, Communities, and Development Partners:** Collaborate with schools in promoting emergency preparedness and learner transport safety by supporting safety awareness programs, mobilizing resources for safety improvements, and participating in community-based school safety initiatives.

6. **Road Safety and Emergency Response Agencies:** Strengthen partnerships with schools by providing regular road safety education, emergency response training, simulation exercises, and technical support to enhance institutional preparedness and reduce transport-related risks affecting learners and staff.

Study Limitations

This study was conducted in public secondary schools in West Pokot County; therefore, the findings should be interpreted within the context of the county and may not be directly generalizable to schools operating under different geographical, socio-economic, or infrastructural conditions. The cross-sectional design captured respondents' perceptions at a single point in time and was therefore unable to assess changes in emergency preparedness, transport safety standards, and school community well-being over time. Although methodological triangulation enhanced the credibility of the findings, some questionnaire and interview responses relied on self-reported information and may have been influenced by recall or social desirability bias. In addition, the study did not examine the financial costs, resource requirements, or operational challenges associated with implementing and sustaining school safety standards.

Suggestions for Further Research

Future studies should employ longitudinal research designs to examine the long-term effects of emergency preparedness and transport safety interventions on learner well-being, school resilience, and educational outcomes. Comparative studies involving schools from different counties and diverse geographical and socio-economic contexts would provide broader evidence on factors influencing the implementation of school safety standards and enhance the generalizability of findings. Further research should examine the financial requirements, resource allocation, and practical implementation barriers associated with strengthening emergency preparedness and transport safety in public secondary schools. In addition, studies should investigate the potential of digital innovations, including early warning systems, GPS-enabled school transport monitoring, and mobile emergency communication platforms, in enhancing school safety management. Qualitative research exploring the lived experiences of learners, teachers, school administrators, and other stakeholders during

emergencies would also provide deeper insights into the psychological, social, and institutional dimensions of school safety.

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