

A Study on the Implementation of Safety Measures in Educational Institutions: A Conformity Analysis with the Pakistan School Safety Framework

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Abstract

Introduction:

Over the past few decades, school-related occurrences have increased, putting school-age children and youth at risk from human-caused accidents and natural disasters. Understanding secondary school safety and security culture is crucial owing to children' increasing emotional capability, immature mental state, and physical fragility. This study examines this crucial issue from Gujranwala and Karachi students, teachers, and administrators.

Methodology:

Employing a quantitative methodology, this research relies on a survey administered to fifty respondents. This approach is chosen to address a significant knowledge gap, providing detailed insights into the safety procedures adopted within educational settings. The survey design allows for a structured analysis of the safety and security culture prevalent in secondary schools.

Results:

The findings show a supportive safety and security culture of cooperation, open communication, and shared accountability among students, teachers, and administrators. Positive school culture reduces immediate threats. The report recommends safety education programs to mitigate danger over time, while student and instructor health awareness can reduce risk immediately. Despite the cross-sectional design and small sample size, the results demonstrate the importance of a strong safety culture in schools.

Future Direction:

To further understand school safety dynamics, future research should use varied methods, broaden geographical coverage, and use longitudinal studies. These projects could improve school safety regulations and build stronger safeguards. These future directions aim to promote school safety scholarship and empower evidence-based policymaking.

Keywords: *School, Safety, Security, Framework,*

Introduction

Over the past few decades, there have been countless instances of accidents that have occurred in schools, which have posed serious hazards to children and teenagers who are of school age. These accidents have occurred as a result of the rapid development of safety risks caused by natural disasters and accidents caused by humans (Kienesberger et al., 2022). As a result of their physical fragility, immature mental state, and developing emotional capacity, kids are particularly vulnerable to harm and are reliant on the care of adults. As a result of the fact that school safety and security is becoming an increasingly important issue on a global scale, the research is provided with both background and inspiration (Yang, Dong, and Liu, 2022). Because incidents involving bullying, violent behavior, and other safety-related incidents occur far too frequently at educational institutions, there is an essential requirement for a comprehensive understanding of safety and security standards. The research acknowledges the significance of ensuring that classrooms are safe environments for both students and instructors within the broader framework of educational policy and practice (Imran et al., 2023).

Alcantara et al. (2016) conducted a series of research that provide evidence that underlines the crucial relevance of protecting students from detrimental psychological and physical impacts. This larger perspective demonstrates that standard security measures are insufficient to fulfil the vast worries that students have over their safety. According to what was said earlier (Thapa et al., 2013), the study contributes to the ongoing discussion regarding the relationship between school safety and the academic achievement of pupils.

When it comes to enhancing school safety, the most important features and qualities are putting an emphasis on practical modifications in design and fittings, education, training, organization, and politics. On the basis of a review of the relevant literature, Yang (2022) used the study to provide clarification on conceptual terminology such as school safety and school security. It was his intention to show school safety from the perspectives of the physical, psychological, social, and environmental components, while simultaneously defining school security as the entirety of the steps taken to prevent dangers to stakeholders in educational environments. With a particular emphasis on schools in Gujranwala and Karachi, the study sheds light on the particular dynamics and challenges that are present within Pakistan's educational administration. Because of the significant racial and socioeconomic variety that exists in these classes, it is more challenging to maintain a safe environment. In light of the fact that concerns are growing and dangers are shifting, it is of the utmost importance to do research that assesses the safety measures that are

currently in place and contributes to the ongoing discussion regarding how schools can avoid violence and make all students feel safer (Bandura, 1986). The purpose of this project is to provide researchers, educators, and policymakers all around the world with useful insights into school safety by making use of the knowledge that is already available and adapting it to the specific circumstances that are present in Karachi and Gujranwala.

Specifically focusing on schools in the Gujranwala and Karachi regions of Pakistan, this research fills a significant void in the existing body of knowledge concerning the topic of school safety. When compared to the large amount of literature that exists on the topic of school safety around the world, there is a dearth of written material concerned with Pakistan's educational system. The incorporation of quantitative and qualitative methods can be difficult, and the existing body of literature does not seem to contain any complete reviews of safety provisions. The Pakistan School Safety Framework (PSSF) is modelled after the local implementation that is being studied in this study as a potential solution. The existing body of literature does not contain a full review of safety measures in this particular cultural and educational setting; the purpose of this study is to fill this gap in the understanding of safety measures. The purpose of this study is to shed light on the complicated safety concerns that Pakistani schools face and to give answers that are specific to Pakistan. The goal of this study is to improve school safety in Pakistan.

Objectives of the Study

- To assess the implementation of safety and security measures in schools
- To analyze the alignment of schools with the Pakistan School Safety Framework

Research Questions

- What are the current safety and security provisions in schools?
- To what extent do schools adhere to the Pakistan School Safety Framework?

Literature Review

The safety and security of a school, which is a crucial component of the overall ambiance of the school, can be broken down into three distinct components. Physical safety, emotional (or psychological) safety, order and accountability are only few of the factors that fall under this category. According to Wang and Degol (2016), the idea of physical safety is described as the lack of aggressive behavior, bullying, violent behaviour, and victimization in the environment that is around the individual. According to Jenings et al., (2011), kids do not have a favorable opinion of the safety of their school when schools do not have systems that support physical safety. This is because students do not feel that their school is safe. Not only do these systems offer positive behavioral supports, classroom management, and institutional and surveillance security, but they also include classroom management (Kioko, 2020). When it comes to the field of education, the concept of emotional or psychological safety can be defined by the existence of counselling and supportive connections between students and teachers or other members of the school staff

(Darling & Cook, 2018). When it comes to the topic of school safety, empirical study is absolutely necessary in order to acquire significant insights and a deeper understanding of the problem. This is due to the fact that these research have an impact on both policy and practise. Considerable empirical study that contributes to the existing body of knowledge could be beneficial to the process of making decisions in the field of education.

The potential application of empirical research to enhance school safety is demonstrated by Thapa et al. (2013), as stated in the aforementioned reference. They investigated the relationship between the environment of the school and the academic performance of students by analyzing survey data acquired from a large number of schools. The findings highlight the association between a pleasant school atmosphere and improved behavioral and academic outcomes (Lunenburg et al, 2012). These findings are based on empirical research that demonstrates the relationship between safety measures, the general environment of the school, and the well-being of students (Jackline, Ngala, & Tikoko, 2020).

An additional illustration is provided by Masitsa (2011), who carried out an empirical study which focused on the topic of school safety in secondary schools in Kenya. The study conducts an in-depth analysis of safety measures by employing a variety of research methods, including interviews and surveys. These empirical data can be of use to legislators and educators in understanding the prevalence of violent situations as well as the deficiencies of the safety standards that are currently in place.

This particular study stands out in light of the limited amount of empirical material that pertains to the problem of school safety in Pakistan. By adopting a mixed-methods approach and making reference to the Pakistan School Safety Framework (PSSF), the purpose of this study is to supply the educational environment in Pakistan with empirical evidence that has been strongly demanded. Following the current trend in empirical studies that emphasise the necessity to combine qualitative and quantitative data for a thorough investigation of the issue (Michael, 2013), the purpose of this research is to bridge this information gap by providing a comprehensive evaluation of the safety provisions that are in place.

In conclusion, empirical research has the potential to assist us in comprehending the dynamics of school safety. The purpose of this investigation is to contribute to the current corpus of empirical literature by expanding upon the findings of earlier research and offering fresh perspectives. In the two cities of Karachi and Gujranwala, which are located in Pakistan, it will throw light on important topics that may be used to build policies that are aimed at improving school safety.

Previous research on school safety in Pakistan

It is now more widely understood that it is necessary to provide safe learning environments, which has resulted in an increase in the quantity of research that has been undertaken on the subject in educational institutions in Pakistan. There have been a few fundamental studies that have helped shed light on the safety precautions that are being taken in Pakistani schools, despite the fact that the amount of research that is being conducted is now expanding. Kutsyuruba et al. (2015)

conducted a significant new study that explores the perspectives of female university students in Pakistan with regard to their personal safety. This study is considered to be of great importance. The findings of this study give light on the specific dangers that female students experience and bring to light the significance of schools putting in place measures to address these concerns (Lowry et al., 2023). (Mansfield et al., 2016) conducted a survey with the objective of acquiring a more in-depth understanding of the perspectives held by Pakistani educators with relation to the safety of their schools. The purpose of this study is to analyse the perspectives of Pakistani educators on a variety of aspects of the issue of school safety (Murithi, 2010). This research is being conducted with the intention of determining the current level of school safety and locating any potential gaps that may be present.

As an additional point of interest, the authors of the study (Hair et al., 2015) analyse the influence that school safety measures had on the academic performance of students in Pakistan. The research provides essential insights into the complex subject of school safety (Kirui et al., 2011). These insights are provided by the construction of a connection between safety measures, the mental health of students, and the academic accomplishment of children. According to Morrison et al. (2011), the bulk of these studies have concentrated on children's perceptions of the safety available at school as well as their general well-being. Despite the fact that these research have unquestionably shed light on a number of significant difficulties, this is something that has to be taken into consideration (Wang et al., 2020). In secondary schools, particularly in regions with higher population densities such as Gujranwala and Karachi, it is of the utmost importance to establish a curriculum that places a greater emphasis on the subject matter that is being taught.

This study will adopt a mixed-methods strategy to conduct an in-depth evaluation of the safety arrangements that are in place at secondary schools located in Gujranwala and Karachi. The purpose of this study is to contribute to the existing body of knowledge. Using the Pakistan School Safety Framework (PSSF) as a point of departure, the purpose of this article is to provide a comprehensive analysis of the safety concerns that exist in the educational environment of Pakistan as well as the potential solutions to these concerns (Cheng et al., 2023). This study contributes to the continuing conversation about school safety in Pakistan by offering insights that can influence policy and practice towards safer learning environments. In addition, it complies with the standards for precise citation and reference.

Theoretical framework

Social Ecological Model

According to Garbarino (1980), the Social Ecological Model serves as the theoretical foundation around which this investigation is built. According to this theory, people's actions are influenced by a number of circumstances that are interconnected with one another. Several levels of systems are involved in interactions, including the microsystem (which refers to the experiences of an individual), the mesosystem (which refers to the general dynamics of interpersonal relationships), the exosystem (which refers to the dynamics of external

institutions), and the microsystem (which refers to the dynamics of social and cultural systems). When we apply this strategy to the problem of school safety, we are able to observe the extensive range of contextual factors that influence people's perspectives and actions with regard to safety (Mulama, 2023).

It is important to take into account not only the experiences of the students, which are frequently referred to as microsystems, but also the aspects that occur at the school level, such as the relationships that exist between students and teachers and the interactions that occur between classmates (Syed et al., 2022). Ecosystems, which include community safety standards and parental engagement, have an effect on the dynamics of school safety, according to Oduor et al. (2012). When it comes to ensuring the safety of schools, internal factors are also an important factor. It is important to note that the larger framework takes into account the socioeconomic and cultural aspects of the macrosystem. This acknowledges the greater contextual effects that have an effect on the safety of schools in Gujranwala and Karachi.

Using the Social Ecological Model, the objective of this study is to shed light on the intricate interaction that exists between various ecological levels and the impact that they have on school safety. This will be accomplished by utilising the model. The application of this theoretical framework to the data that was collected makes it feasible to undertake a more in-depth examination of the multiple interlinked aspects that have an effect on safety measures in the specific school environments of Gujranwala and Karachi. This analysis may be carried out in order to better understand the factors that influence safety measures.

Research Methodology

In this study, quantitative research methodologies were utilised in order to acquire an understanding of the degree of safety that is present in schools located in Gujranwala and Karachi. A technique known as cross-sectional research approaches was utilised by the researchers with regard to the inquiry that is currently being conducted. The utilisation of data that was gathered at a certain point in time during the course of the study allowed for the production of an overview of people's perspectives regarding the level of safety it provides. The purpose of this study was to acquire a more in-depth understanding of the relationship between students' perceptions of school safety and the actual safety of schools through the utilisation of quantitative research approaches. The research studied the elements that have an impact on the culture of safety in schools as well as the effectiveness of safety measures. All of this was done via the utilisation of an empirical method. This study focuses mostly on educational institutions and primarily explores both students and teachers regarding their experiences in the classroom. Due to the fact that they encompass all aspects of education, primary schools in Gujranwala and Karachi, both public and private, are included among the institutions that have been selected.

To ensure that the sample is representative of the population, fifty people were selected at random from the pool of candidates. There are a total of thirty teachers and twenty kids included in this sample. These individuals are from public and private schools that are located in the two cities combined. In order to ensure a balanced representation of the various types of education

and degrees of education, respectively, a stratified random sampling strategy is utilised in both Gujranwala and Karachi. In the event that this approach is utilised, the questionnaire will undoubtedly cover a wide variety of perspectives with regard to the issue of school safety. There will be a primary focus on collecting data through the use of surveys that employ a Likert scale questionnaire with five points. In addition to the policies and procedures of educational institutions, the questionnaire also contained information about the overall safety and security culture of educational institutions.

For the purpose of facilitating the effective collection of data, participants will be invited to complete online surveys using educational platforms or sending them via email. In the event that persons do not have access to the internet, written surveys will be handed out to them in person. In order to recognise patterns and trends, the research utilised quantitative data and statistical methods such as descriptive statistics by employing statistical methods. Through the use of regression analysis, the researchers looked for connections between the variables in order to develop multiple viewpoints on the factors that influence safety culture.

Results and Discussion

Table 1: Descriptive Statistics

	Descriptive Statistics				
	N	Minimum	Maximum	Mean	Std. Deviation
Age	50	1.00	5.00	3.6020	1.04535
Experience	50	1.00	4.00	1.3144	.46505
Location	50	1.00	5.00	2.9632	.87584
School Safety Policy	50	3	5	4.14	.540
School safety procedure	50	4	5	4.06	.238
Safety community	50	1	5	4.04	.725
Safety security culture	50	1	5	4.04	.718
Valid N (listwise)	50				

Insight into important characteristics of the dataset, such as the most prominent patterns and variances, can be gained through the use of descriptive statistics. A large variety of ages can be seen among individuals, which may be a reflection of the fact that diverse demographic groupings are represented by the age variable. Between the ages of 6 and 12, it is 1 to 5, and for those who are 30 and older, it is 5. When looking at the standard deviation, the results come out to show that the age range is not too extreme. In the second place, there is a very small amount of variation among individuals, which suggests that, on average, they have between one and two years of professional experience (Perry, 2022). As demonstrated by the location variable, the geographic distribution was characterized by values that fell close to the middle of the range and exhibited a significant amount of variation. Across the board, participants gave positive ratings to the school's safety, with the top grades being given to the school's security culture, community

involvement, and procedures and guidelines. The relatively low standard deviations are a clear indication of the continuously good quality of these evaluations. In conclusion, the findings indicate that the participants had a generally optimistic attitude, with only slight discrepancies; this is especially clear when taking into consideration the positive ratings of the school safety measures.

Table 2: Coefficients

Model	Coefficients								
	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
	B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1 (Constant)	3.866	.154		25.162	.000	3.564	4.169		
School Safety Policy	.591	.127	.245	1.507	.011	.012	.093	.906	1.104
School safety procedure	.315	.220	.101	.023	.029	.045	.035	.886	1.129
Safety community	.331	.119	.159	1.010	.031	.019	.058	.992	1.009
Location	.308	.110	.223	.388	.019	.051	.034	.963	1.039

a. Dependent Variable: Safety security culture

The results of the regression analysis are presented in Table 2, where the dependent variable that was used was Safety Security Culture. It is projected that the value of the constant term that indicates Safety Security Culture will be 3.866, provided that all other model variables are kept at their default values of zero. There is a correlation between the coefficient of 0.591 and the beta-standardized value of 0.245 for the school safety policy. For every one-unit rise in school safety policy, we may anticipate a half-unit increase in the projected value of safety security culture. This holds true regardless of the extent of the increase. The presence of a culture of safety and security is indicated by school safety rules to a substantial degree ($p = 0.011$, Sig.).

There are standardized coefficients of 0.101 for the School Safety Procedure, and there are unstandardized coefficients of 0.315 for the procedure. Therefore, the predicted value of Safety Security Culture will increase by 0.315 units for every unit that is added to the School Safety Procedure. On the other hand, the fact that the p-value is only 0.029 suggests that the association is only marginally significant overall.

In addition, there is a causal relationship between Safety Community and both the standardized coefficient (0.159) and the coefficient (0.331), which indicates that the relationship is positive. When there is an increase of one unit in the Safety Community, there will be a rise of

0.331 units in the Safety Security Culture. The results have a p-value of 0.031, which indicates that they are statistically significant.

Incorporating location is one of the factors that the model takes into account, as seen by the standardized coefficient of 0.223 and the coefficient of 0.308. Every one percent rise in Location results in a 0.308% increase in the value that is projected to be associated with Safety Security Culture. Based on the p-value, we are able to draw the conclusion that the threshold for statistical significance is 0.019.

The coefficients can be used to determine the correlations between the variables that are dependent and those that are predictors, as well as the overall trend of the variables. The standardized coefficients, also known as beta, should be checked in order to ascertain the relative significance of each predictor. Location, school policy, and the safety community are the three key elements that have an effect on the sense of safety and security that exists within an organization. The goals of the study as well as the greater body of research on school safety need to be taken into consideration in order to make sense of these findings.

Discussions

The findings of the study shed light on numerous aspects of the problem; therefore, it is important to analyse them in the context of the greater body of literature on school safety. In line with the positive impressions of school safety rules, Thapa et al. (2013) discovered that a good school climate significantly enhances both safety measures and student results. This finding is in line with the current state of affairs. According to the findings of this study, the participants lend credibility to the assertions made by the experts regarding the significance of safety measures in the process of establishing a welcoming and secure classroom atmosphere. The findings of Masitsa's (2011) research on the safety of secondary schools in Kenya are in line with the findings of the respondents, who are unanimous in their agreement with the significance of school safety practices. Within the context of lowering people's perceptions of danger, Masitsa emphasized the need of clearly specified safety measures (Koskey & Inyega, 2018). The constant findings demonstrate the need of implementing stringent safety standards in all different kinds of educational institutions. Generally speaking, residents of the neighborhood have a favorable perception of safety, which is in line with the findings of earlier studies conducted on this subject. Students' opinions of their own personal safety were shown to have a positive correlation with the safety of their community, according to the findings of a study that was conducted by Kutsyuruba et al. (2015) concerning women who were attending universities in Pakistan.

It is possible that the kids' perception of their own safety at home may have an effect on how they feel about their own safety at school, and this lends support for the notion. According to Alcantara et al. (2016), the continuous support that the participants have shown for a culture that prioritizes safety and security is consistent with the concepts of situational crime prevention. In light of the fact that Oktari et al. (2015) discovered that organizational culture can result in enhanced safety measures, educational institutions ought to make the establishment of a robust safety and security culture a top priority. The comparison of the findings of this study to those of

other studies serves the goal of establishing parallels and context; nonetheless, it does provide features that should be considered. Whenever you are attempting to make sense of the aggregate data, it is important to keep in mind that every single study had its own unique aims, techniques, and settings (Smith et al., 2020).

When taken as a whole, the findings lend support to and expand upon the findings of past studies about the safety of schools. As a result of this presentation's effective placement of the facts within the framework of relevant studies, we have a greater understanding of the similarities and variations in perspectives and actions pertaining to school safety (Sadeghi, 2022).

Conclusion

The findings of this survey provide insights into the attitudes of inhabitants of Gujranwala and Karachi regarding the safety of schools and the actions they are taking to make a difference in the matter. The findings indicate that the participants, on the whole, were in favour of safety security culture, community safety measures, and school safety rules and procedures (Shozi, 2018). The greater body of evidence that supports the necessity of having clearly established safety protocols, a supportive community attitude, and a solid safety security culture in schools is consistent with this positive view, which is in keeping with the larger body of evidence (Nasim et al., 2022). According to the findings of the study's regression analysis, the culture of safety and security is significantly influenced by a variety of elements, including but not limited to location, community safety, safety procedures, school safety standards, and other essential characteristics.

The findings of this study have consequences for individuals who are striving to make secondary schools safer, such as teachers, legislators, and administrators. These implications are applicable in the real world. It is necessary to have a grasp of what constitutes a robust safety culture in order to construct safer learning environments. Because of this information, we are now in a position to formulate policies and actions that have a greater likelihood of being successful.

Limitations of the study

There are still concerns that need to be taken into consideration, despite the fact that the study may have some positive outcomes. Due to the dynamic nature of school safety, it is necessary to overcome the limitations of the cross-sectional design in order to establish cause-and-effect correlations. When longitudinal research is utilized, it is possible to gain a deeper understanding of the development of safety practices over the course of time.

The use of self-report assessments may present the possibility of response bias due to the fact that individuals may provide responses that they believe society would like them to hear. With such a small sample size, it is difficult to draw broad conclusions about the entire community, despite the fact that the information that was acquired from the fifty participants is relevant. Due to the fact that the research mainly focused on secondary schools in certain regions, it is essential to exercise extreme caution when extrapolating the findings to lower levels of education or to other countries.

It is vital to raise the sample size in order to guarantee statistical power, broaden the geographic reach of the study, and mix different methodologies of research in order to overcome these issues and strengthen future research endeavors. In the absence of these limitations, researchers will be unable to acquire a comprehensive understanding of the factors that make effective school safety practices.

Recommendations

1. **Enhancing Safety Protocols:** The research highlights the significance of well-defined safety measures in educational establishments. In order to improve school safety, administrators should prioritize the creation and execution of comprehensive safety protocols that are tailored to the distinct requirements of each school (Rahlin et al., 2021).
2. **Community Engagement and Support:** To enhance school safety, it is advised to encourage community involvement in promoting a secure educational setting, as there is a direct link between community safety and school safety. Engaging in cooperation with local residents, community leaders, and parents helps foster the development of a shared dedication to ensuring safety.
3. **Highlighting Safety Culture:** Educational institutions should prioritize the development of a robust safety and security culture, in line with the principles of situational crime prevention. This entails cultivating a milieu in which safety is not merely a collection of regulations, but rather a collective principle accepted by the entire school community (Payne, 2023).
4. **Perpetual Training and Awareness Initiatives:** In order to guarantee the enduring adherence to safety protocols, educational institutions should establish continuous training and awareness programs for both faculty and students. These programs encompass emergency protocols, crisis handling techniques, and tactics for upholding a secure educational setting.

Future Research Direction

1. **Longitudinal Studies:** Perform longitudinal studies to monitor the progression of attitudes and behaviors about school safety over some time. This will offer valuable perspectives on the long-term viability and efficacy of safety protocols.
2. **Conduct comparative comparisons with international studies** to find global models in school safety. Gaining insight into differences in cultural contexts can contribute to the creation of safety measures that are attuned to cultural sensitivities.
3. **Approaches that prioritize the needs and interests of students:** Examine student-centered strategies for ensuring school safety and security, taking into account how kids' perceptions of safety in their homes affect their sense of security in school. Enact measures that promote a feeling of safety and contentment among students.
4. **Explore the incorporation of technical solutions,** such as surveillance systems and emergency communication tools, to augment school safety. Evaluate the viability and efficacy of these technologies in various educational environments.

5. Foster community engagement by prioritizing programs that enhance the positive attitude towards safety and security. Develop initiatives that engage parents, community leaders, and other stakeholders in establishing a safety-oriented atmosphere.
6. Foster interdisciplinary research collaborations among psychology, sociology, and education fields to enhance comprehension of the psychological and social determinants that impact perceptions of safety and security in educational institutions.

References

- Alcantara, S. C., González-Carrasco, M., Montserrat, C., Viñas, F., Casas, F., & Abreu, D. P. (2016). Peer violence in the School Environment and Its Relationship with Subjective Well-Being and Perceived Social Support Among Children and Adolescents in Northeastern Brazil. *Journal of Happiness Studies*, *18*(5), 1507–1532. <https://doi.org/10.1007/s10902-016-9786-1>
- Clark, H., Coll-Seck, A. M., Banerjee, A., Peterson, S., Dalglish, S. L., Ameratunga, S., Balabanova, D., Bhan, M. K., Bhutta, (2020). A future for the world’s children? A WHO–UNICEF–Lancet Commission. *The Lancet*, *395*(10224), 605–658. [https://doi.org/10.1016/s0140-6736\(19\)32540-1](https://doi.org/10.1016/s0140-6736(19)32540-1)
- Darling-Hammond, L., & Cook-Harvey, C. M. (2018). Educating the Whole Child: Improving School Climate to Support Student Success. Learning Policy Institute.
- Garbarino, J. (1980). The ecology of human development: Experiments by nature and design. *Children and Youth Services Review*, *2*(4), 433–438. [https://doi.org/10.1016/0190-7409\(80\)90036-5](https://doi.org/10.1016/0190-7409(80)90036-5)
- Hair, N. L., Hanson, J. L., Wolfe, B. L., & Pollak, S. D. (2015). Association of Child Poverty, Brain Development, and Academic Achievement. *JAMA Pediatrics*, *169*(9), 822. <https://doi.org/10.1001/jamapediatrics.2015.1475>
- Imran, M., Kazmi, H. H., Rauf, M. B., Hafeez, A., Iqbal, S., & Solangi, S. U. R. (2022). Internationalization Education Leadership of Public Universities of Karachi. *Journal of Positive School Psychology*, *6*(11), 1175-1188.

- Jennings, W. G., Khey, D. N., Maskaly, J., & Donner, C. M. (2011). Evaluating the relationship between law enforcement and school security measures and violent crime in schools. *Journal of police crisis negotiations*, 11(2), 109-124.
- Jackline, S., Ngala, F. B., & Tikoko, B. J. (2020). Relationship between implementation of safety standards and guidelines for drug and substance abuse, and student safety in Public mixed boarding secondary schools in Kenya. *Editon Consortium Journal of Psychology, Guidance and Counseling*, 2(1), 169-179.
- Kutsyuruba, B., Klinger, D. A., & Hussain, A. (2015). Relationships among school climate, school safety, and student achievement and well-being: a review of the literature. *Review of Education*, 3(2), 103–135. <https://doi.org/10.1002/rev3.3043>
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Mansfield, C. F., Beltman, S., Broadley, T., & Weatherby-Fell, N. (2016). Building resilience in teacher education: An evidenced informed framework. *Teaching and Teacher Education*, 54(54), 77–87. <https://doi.org/10.1016/j.tate.2015.11.016>
- Masitsa, M. G. (2011). Exploring safety in township secondary schools in the Free State province. *South African Journal of Education*, 31(2). <https://doi.org/10.4314/saje.v31i2.66449>
- Mulama, M. W. (2023). *Influence of Board of Management Governance Practices on the Safety Standards in Public Secondary Schools in Rabai Sub-county, Kilifi County, Kenya* (Doctoral dissertation, University of Nairobi).
- Nasim, M. A., Yadav, R. S., Dash, S. S., & Bamel, U. (2022). Leadership styles and safety culture—a meta-analytic study. *International Journal of Organizational Analysis*.

- Oktari, R. S., Shiwaku, K., Munadi, K., Syamsidik, & Shaw, R. (2015). A conceptual model of a school–community collaborative network in enhancing coastal community resilience in Banda Aceh, Indonesia. *International Journal of Disaster Risk Reduction*, *12*, 300–310. <https://doi.org/10.1016/j.ijdrr.2015.02.006>
- Rahlin, N. A., Siti Aisyah Bahkiar, A. S., Idris, S., Lily, J., Razak, R. A., & Md. Mansur, K. (2021, November). Improving Safety Performance in SMEs Through Safety Climate, and Safety Motivation: A Conceptual Framework. In *International Conference on Business and Technology* (pp. 537-551). Cham: Springer International Publishing.
- Syed-Yahya, S. N., Idris, M. A., & Shimazu, A. (2022). Support for safety in the fire service: a test of reciprocal causality for safety motivation. *Industrial health*.
- Shozi, N. G. (2018). A strategy to improve the implementation of school safety policies in selected Osizweni schools (Doctoral dissertation, University of the Free State).
- Smith, T. D., DeJoy, D. M., & Dyal, M. A. (2020). Safety specific transformational leadership, safety motivation and personal protective equipment use among firefighters. *Safety science*, *131*, 104930.
- Sadeghi, H. (2022). Investigating Organizational Safety Climate and Its Impact on Incidence of Unsafe Behaviors among Firefighters. *International Journal of Occupational Hygiene*, *14*(2), 114-121.
- Thapa, A., Cohen, J., Guffey, S., & Higgins-D'Alessandro, A. (2013). A Review of School Climate Research. *Review of Educational Research*, *83*(3), 357–385. <https://doi.org/10.3102/0034654313483907>
- Kienesberger, B., Arneitz, C., Wolfschluckner, V., Flucher, C., Spitzer, P., Singer, G., ... & Schalamon, J. (2022). Child safety programs for primary school children decrease the injury severity of dog bites. *European journal of pediatrics*, 1-6.

- Kioko, N. E. (2020). Principals' Effectiveness in The Implementation of Safety Guidelines on Physical Infrastructure in Public Secondary Schools in Makueni County, Kenya (Doctoral dissertation, *Kenyatta University*).
- Koskey, A. S. J., & Inyega, H. N. (2018). Safety policy implementation and risk reduction in Day Public Primary schools in Nandi North Sub-County, Kenya. *International Journal of Education and Research*, 6(7), 1-10.
- Kirui, R., Mbugua, Z., & Sang, A. (2011) Challenges facing head teachers in security management in public secondary schools in Kisii County in Kenya: *International Journal of Humanities and Social Science*, (1)15, Special Issue October 2011.
- Lunenburg, F. C. & Orstein, A. C. (2012). Educational administration: Concepts and practices (6th ed.). Belmont, CA: Wadsworth.
- Michael, J. F. (2013). Crisis management and emergency planning: Preparing for today's challenges. USA: CRC Press, an imprint of Taylor & Francis Group.
- Morrison, G. R., Ross, S. M., Kalman, H. K., & Kemo, J. E. (2011). Designing effective instructions (6th ed.): *Hoboken*: John Willey and Sons.
- Murithi, W. E. (2010). Challenges principals face in enhancing student discipline in secondary schools in Tigania district, Kenya (Unpublished master's thesis). *Chuka University*.
- Oduor, A. & Omoro, J. (7 September 2012). Kenyan schools face closure over safety standards. *East African Standard*, p. 3.
- Payne, M. M. (2023). How Safety Leadership Styles Impact Employee Safety Behaviors.
- Perry, B. L. (2022). A Case Study on How School Leaders Foster a Safety Culture in Secondary School.
- Wang, M. T., & Degol, J. L. (2016). School climate: A review of the construct, measurement, and impact on student outcomes. *Educational psychology review*, 28(2), 315-352.
- Wang, K., Chen, Y., Zhang, J., & Oudekerk, B. A. (2020). Indicators of School Crime and Safety: 2019. NCES 2020-063/NCJ 254485. National Center for Education Statistics.
- Yang, J., Dong, X., & Liu, S. (2022). Safety Risks of Primary and Secondary Schools in China: A Systematic Analysis Using AHP–EWM Method. *Sustainability*, 14(13), 8214.