Designing a Behavior-Based Safety Model in Elementary Schools with a Passive Defense Approach

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Abstract

Introduction: Incidents causing death, injuries, and various damages to humans and properties occur at any time and place. Schools are the main platform for education and upbringing shaping the future of a nation. Unfortunately, as evidenced by national statistics in recent decades, a significant number of students have become victims of accidents and unfortunate events within the educational system. Hence, considering the role of educational systems responsible for educating and nurturing the human resources of society, preserving and protecting students, and paying attention to their safety and health as one of the fundamental human rights is crucial. Research Objective: This study was mainly aimed at designing a behavior-based safety model in elementary schools with a passive defense approach.

Method: This qualitative research was conducted using phenomenological method and content analysis. The data collection method involved semi-structured interviews. Accordingly, out of the potential participants, 27 individuals including professors, experts, managers, and specialists in relevant fields were selected based on the criteria of holding a Ph.D., having a minimum of 2 years of work experience, based on the inclusion criteria of the research, and sampling continued until reaching theoretical saturation. The interviews were analyzed using the seven-step (Colaizzi , 1978) model and the content analysis method, and the validity of the data obtained was confirmed through information triangulation and researcher validation.

Finding: After extracting and categorizing the themes, the findings were categorized into three organizing themes: psychophysical (psychological-physical), administrative-educational, and structural safety, and eight basic themes: physical safety, psychosocial (psychological-social) and behavioral safety, administrative, awareness-education and content, encouragement and reward, structure-architecture, facilities and equipment, and proximity and accessibility. Since education is the cornerstone of sustainable development and students are the primary targets of education and upbringing, i.e. the most vulnerable group among incidents and disasters within schools, the mission of education goes beyond education and upbringing towards the social health of students. To this end, education should focus on preparing guidelines for passive defense considerations in school design and establishing a school safety movement with the participation of student mobilization and the community, making the implementation of passive defense considerations mandatory in the construction of new schools, establishing passive defense technical offices in the Ministry of Education, utilizing the capabilities of engineering mobilization for the necessary studies and designs, and creating a sense of participatory among the main pillars of the educational system (officials, students, and parents) to create new safe schools and secure existing schools, leading to the psychological safety of families and students.

Key Words: Safety, Behavior-Based Safety, Passive Defense, Elementary Schools

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Introduction

As we witness, incidents causing death, injuries, and various damages to humans, properties, society, and even organizational reputation occur at any time and place. Schools, as the primary platform for education and upbringing, encompass a vast segment of society, undoubtedly comprising the future builders of our beloved country, Iran, with a population of over 12 million students. In recent decades, unfortunately, according to national statistics many students have been victims of accidents and unfortunate events within the educational system. Therefore, considering the role of educational systems responsible for educating and nurturing the human resources of society, preserving and protecting students, these national assets considered as the flag bearers of future development of the nation, and paying attention to their safety and health as one of the fundamental human rights is crucial. In this regard, behavior-based safety (BBS), with a passive defense approach, creates a platform through which effective steps can be taken to prevent and reduce the accidents by eliminating or controlling hazards since human casualties and loss of human capital are irreparable for any organization and will have a significant impact.

The concept of Behavior-Based Safety (BBS) is based on the idea that individuals enhance safety skills and reduce unsafe behaviors through better safety information and awareness. This approach typically includes implementing training programs, continuous feedback, establishing a safety culture, and creating safer working conditions (Cooper, 2009). In this regard, Astor & Benbenishty (2022), in a study with the aim of integrating policy into the theory and research of school safety, emphasize the importance of considering the social environment of schools and the role of school culture in shaping safety efforts and violence prevention. Previously, the training of BBS had been highlighted as a driving force for implementing BBS processes in educational, research, and academic organizations (Al-Hemoud & Al-Asfoor, 2006).

In the Fundamental Transformation Document of Education, passive defense with a comprehensive defense approach has been introduced as one of the vital social concepts (Fundamental Transformation Document of the Formal Public Education System of the Islamic Republic of Iran, 2011). Passive defense refers to a set of actions not requiring the use of weapons, and by implementing it, we can prevent financial damage to critical and sensitive military and non-military installations and human casualties or minimize such damages and casualties (Geller, 2004).

Next, we will review studies and research conducted in this area, as they greatly contribute to the realization of the subject. The results of a research titled "Occurrence of School-Related Injuries Among Students in Dakhiliyah Schools, Oman" indicated that, according to the estimates of the World Health Organization, childhood injuries are one of the leading causes of death and that school-related injuries may be prevented by improving infrastructure and school buildings, and providing age-appropriate fixed school equipment (Al Zeedi, Al Waaili, Al Hakmani & Al Busaidi, 2020). The study aimed at developing a model to enhance community health and biosecurity based on the Second Step of the Revolution concluded that the biological model promotes health and safety within the community, based on the Second Step of the Revolution. This model includes concepts such as environmental health style, environmental balance with an Islamic approach, Islamic environmental ethics, spiritual health based on the environment, and the commitment of producers to creating biological health in the environment and Islamic lifestyle. It also covers these aspects in the area of community security (Azizzadeh, Nami & Sabahizadeh, 2022). Another research was aimed at extracting educational supervision components to develop an appropriate model and it presented 42 items and six parameters (educational leadership, educational management, teaching quality, teaching and learning, research, and social support).

Teaching and learning were strongly endorsed as a key parameter, while social support was less supported, ranging significantly from weak to strong approval (Ali Panah, Hoveida & Nadi, 2018). A study titled "Assessment of Educational Needs of Crisis Management Personnel" concluded that training in emergency planning skills, rapid response skills, and rescue operations are the key topics that need to be included in crisis management training programs (Browna, 2015). Another study, "Civil Defense Training Techniques and Democracy Narratives: Crisis Education in Germany", examined crisis preparedness and response training. The author argues that crisis education is a nascent field in education, and many countries provide necessary training to their citizens to deal with natural disasters and minimize damage. In this study, considering various narratives of democracy in Germany's social, political, cultural, and economic domains, the authors suggests that Germany should take global action in civil defense training (Chadderton, 2015). A study titled "An Examination of the Higher Education System for Crisis Management in China" explored the methods of training instructors in crisis management and the content that can be delivered to students. It revealed that in-service training significantly affects the professional growth and development of crisis management instructors. Moreover, it highlighted that incident management, information management, and familiarity with the principles and laws of crisis management are the top three priorities to be presented to learners. Another research titled "Analysis of Cybersecurity Education Operations" addressed the issue that cybersecurity is a pervasive and effective issue across all sectors of society, emphasizing the necessity of developing a structured educational program for it (Abbott et al., 2015). Goudarzi (2022) stated that schools, where children spend a considerable amount of time, are prone to many accidents and incidents, which may range from mild to even fatal. Moreover, the facilities of schools vary in dealing with these incidents. Schools can reduce preventable accidents and incidents through safety education and ensuring a safe environment. Besides, teachers should be trained in first aid procedures, and the availability of necessary facilities should be ensured.

At present development of passive defense skills and training programs for learners in different countries of the world is growing trend and different countries according to educational needs and their social context have implemented a special form of this program in their country (Van Bockhaven, Matthyssens & Vandenbempt 2015).

Today, passive defense is considered a modern approach in crisis management planning, the existential nature of which relying on reducing crisis impacts through non-military methods. In fact, the passive defense approach encompasses all non-military principles and actions through which financial damage to critical and sensitive military and non-military installations and casualties can be prevented or minimized. Hence, the attention of managers and officials in any community to passive defense plans provides the necessary grounds for advancing this novel approach in promoting the concept of safety and security (Brandon, 2011). Preparing the new generation, particularly children and adolescents, with knowledge, skills, and attitudes related to civil defense is one of the fundamental responsibilities of the national education system. Part of this training should be integrated into the curriculum for learners, as preparing the public for national and comprehensive defense against threats is an essential life skill that everyone must understand. This issue must be thoroughly examined and addressed within the country's public education system to make the best use of school education programs for introducing knowledge and developing skills related to civil defense (Naseri, 2016).

Accordingly, since human resources are considered the most valuable asset of any organization, safeguarding these assets is one of the primary concerns that managers face. This is because the loss of human lives and human resources is irreparable, with a significant impact.

Previous investigations into incidents occurring in schools, laboratories, sports halls, and recreational camps affiliated with educational systems indicate a lack of a proper human-centered approach. This issue, due to management's incompetence at the national level and the absence of a coherent and effective functioning plan, has been repeated numerous times. Considering that the most significant challenge in education policy in the current millennium is the policy of transformation and converting the current educational system into an effective and efficient one, it requires team planning and program implementation within the framework of comprehensive policymaking. Domestic and international studies related to civil defense have been conducted on various relevant topics. However, none of them has specifically focused on designing a BBS model for elementary schools with a civil defense approach in a comprehensive manner covering all BBS components across all grades in elementary schools. Then, given the statistics on school accidents in our beloved country and the need to prevent their occurrence, it is essential to identify the issues and address the various dimensions of this subject to prevent the expansion of its scope. By gaining a thorough understanding and awareness of the precise number of accidents and their consequences, a solid foundation can be laid for principled and effective policymaking to prevent and mitigate the occurrence of such accidents and their resultant impacts.. In this regard, focusing on a specialized approach to dealing with incidents resulting from critical and natural conditions and reducing the vulnerability of human resources and non-human assets is potentially significant, particularly if these measures and considerations are accompanied by a passive defense approach. Therefore, identifying and removing obstacles to adopting safety behavior and strengthening support systems to enhance safety behavior can guide the achievement of predefined goals towards reducing vulnerability. The potential results of the present study can assist educational system experts and stakeholders in preventing incidents and developing and utilizing operational plans for implementing effective interventions in educational systems with a passive defense approach. Hence, based on the points raised, the present research, through a meticulous examination and evaluation of the principles and foundations of civil defense education, the prevailing educational approaches, and high-level policy documents, as well as by giving special attention to the elementary school students' cognitive and psychological characteristics, has initially identified the gaps. Ultimately, it has identified key components across several dimensions and resulting in the development of a comprehensive conceptual framework for civil defense in elementary schools.

Research question

Hence, the main question of the present research is how do the model safety for behavior in primary schools with a passive defense approach?

Methodology

The presente research is extracted of a thesis that the research method is combination of two exploratory -consecutive stages (qualitative-quantitative) and this research is extracted of the first part of the thesis mentioned that with qualitative method and of phenomenology type using interpretive analysis method, employing Colaizzi's (1978) seven-step pattern. This method includes seven stages: 1- A thorough reading of all participants' descriptions and significant findings; 2- Extraction of important phrases and sentences related to the phenomenon; 3- Conceptualization of the extracted important sentences; 4- Sorting participants' descriptions and

common concepts into specific categories; 5- Converting all inferred opinions into comprehensive and complete descriptions; 6- Transforming comprehensive descriptions of the phenomenon into a concise and brief real description; and 7- Final validation. Based on this pattern, initially, attention is paid to the concept of mindfulness, and then descriptions and readings of participants' engagement on the subject are collected using semi-structural interviews.

Potential participants in the qualitative section were selected using purposeful sampling method and Criterion Sampling approach. The sample size in the qualitative phase reached theoretical saturation as content of interviews and opinions of key informants became saturated. The selection criteria for professors, experts, managers, and participants in qualitative interviews included having a Ph.D. in management, strategic management, psychology, educational management, higher education management, general medicine, and neurology (psychiatry) and having at least 2 years of work experience.

At the beginning of each interview, after attracting the participants' attention and interest in the subject, explanations were provided regarding the research objectives. Interviews were conducted for 30-45 minutes and recorded on tape. After asking the main research question, subsequent questions were raised based on the descriptions provided by the participants. The recorded materials were transcribed, and after performing the first two stages of analysis, to ensure the accuracy of researchers' interpretations and understanding of each participant's statements, participants were revisited, interpretations were reviewed with their opinions, and necessary changes were made if needed. With the completion of 27 interviews and information saturation, the interviews concluded, and the final stage of analysis was conducted.

In order to observe ethical considerations, the necessary coordination and permissions were obtained to enter each of the relevant organizations and conduct interviews with the selected participants. After providing necessary explanations about the importance and objectives of the research, participants' consent to participate in the study and recording of interviews was obtained, and they were informed that they were free to leave the study. Researchers provided participants with their full credentials. During the interviews, privacy and comfort of the participants were ensured. Participants' personal information was kept confidential, and they were assured that the audio files would be deleted after completing the notes. Extracted contents from each interview were shared with the participants. In addition, they were informed that they could be informed about the research results if they wished.

Data analysis was conducted using thematic analysis method. By carefully studying these texts, all independent ideas were identified and categorized into main and sub-themes for each interview, and then each was assigned a code. This process was repeated for each interview, and if there were sections with similar themes in previous interviews, the same codes were used as indicators for them. Identified themes were further discussed in a focus group discussion session. Based on the consensus-based approach, final agreements were reached on the extracted themes. Subsequently, the findings were compared with interpretations of other researchers and studies, resulting in a deep understanding of verbal communications by professors, experts, managers, and specialists.

The credibility of qualitative data was determined through techniques of confirmability via researchers' self-review and dependability through precise guidance in data collection flow and investigator triangulation. In addition to the researchers, the interview texts were shared with another expert who extracted sub-themes from the interview text again, and comparing the extracted themes indicated the investigator triangulation and subject matter expert's perspectives.

Research Findings

After data analysis, three organizing themes and eight main themes were extracted, which could represent the experiences of experts and participants regarding mindfulness. Table 1 summarizes the extracted organizing and main themes from the research.

Table 1. Extracted Themes from the Research

Comprehensive theme	Organizing themes	Main themes	Sub themes
Behavior-based safety	Psychological-physical	Physical safety	Preservation and improvement of physical, social, and nutritional health - knowing ways to prevent diseases - knowing security and personal safety measures (medical examinations) - avoiding bullying
		Psychological, social and behavioral safety	Avoiding disrespectful behaviors such as belittling and the like, maintaining self-confidence and strengthening student intimacy, avoiding exam pressure and homework, avoiding mobbing, avoiding discrimination and observing behavioral and organizational justice, actively listening to students, involving them in decision-making, participating in and supporting them in decision-making, accepting individuals' positions and status in society (boy, girl, citizen, teacher, etc.), respecting individuals' thoughts and beliefs in society, respecting norms, laws, and regulations, and freedom of expression.
	Administrative-educational	Administrative	Utilization of specialized resources - establishing organizational justice - management commitment to safety and passive defense goals - using an appropriate management approach for reporting, analyzing, and preventing accidents
		Awareness, education and content	Awareness of danger, risk perception, and strengthening defense - conducting exercises and maneuvers involving relevant organizations and institutions - screening films and slides in schools, facilitating increased knowledge through targeted games and fostering the culture of reading to strengthen safety culture and cope with threats - self-care in safety and risk prevention, diseases, stress management, resilience - promoting safety values such as: accountability, respect for others, problem-solving in crises, responsible citizen, skill in saying no to unreasonable requests - training on the proper use of websites, social networks, mobile phones, etc. - first aid and relief training, safe assembly points and alarm systems, proper use of fire extinguisher

		capsules and behavior during fires, floods, earthquakes, accidents, etc., for students
	Encouragement and reward	Increasing enthusiasm in school - valuing safe activities and behaviors of students under the title of safety competencies and supportive incentives - using students themselves to manage programs, solicit their opinions, etc. - conducting extracurricular and related educational activities such as organizing exhibitions of achievements and top ideas, painting exhibitions, photography, and wall newspapers, and intellectual puzzles related to safety and passive defense and scientific tours
Safety of the physical structure	Structure - architecture	Development of attractive recreational sports facilities - observance of national building safety regulations - attractiveness of the educational environment - having at least one basement floor with dual functionality - quick and easy access to exits and emergency exits
	Facilities and equipment	Educational and safety aids (computer monitor guards, etc.) - fire alarm and extinguishing systems, warning signs, first aid boxes with minimum equipment for first aid and treatment - safe cooling and heating facilities - sanitary water source and emergency power network - the correct arrangement of physical equipment suitable for the anthropometric dimensions of students and in line with the principles of ergonomics and emergency conditions
	Proximity and accessibility	Avoidance of contaminated areas (sewage treatment plants, cold stores, gathering and disposal sites, factories) - observance of boundaries of flood paths, rivers, mountains, etc. - non-adjacency to crowded centers and noisy places such as airports, highways, passenger terminals, etc. - non-adjacency to structural uses and urban facilities such as towers, high-voltage power lines, oil and gas transmission pipelines, fuel distribution centers - access to parking for school service - access to vital services such as fire and emergency services
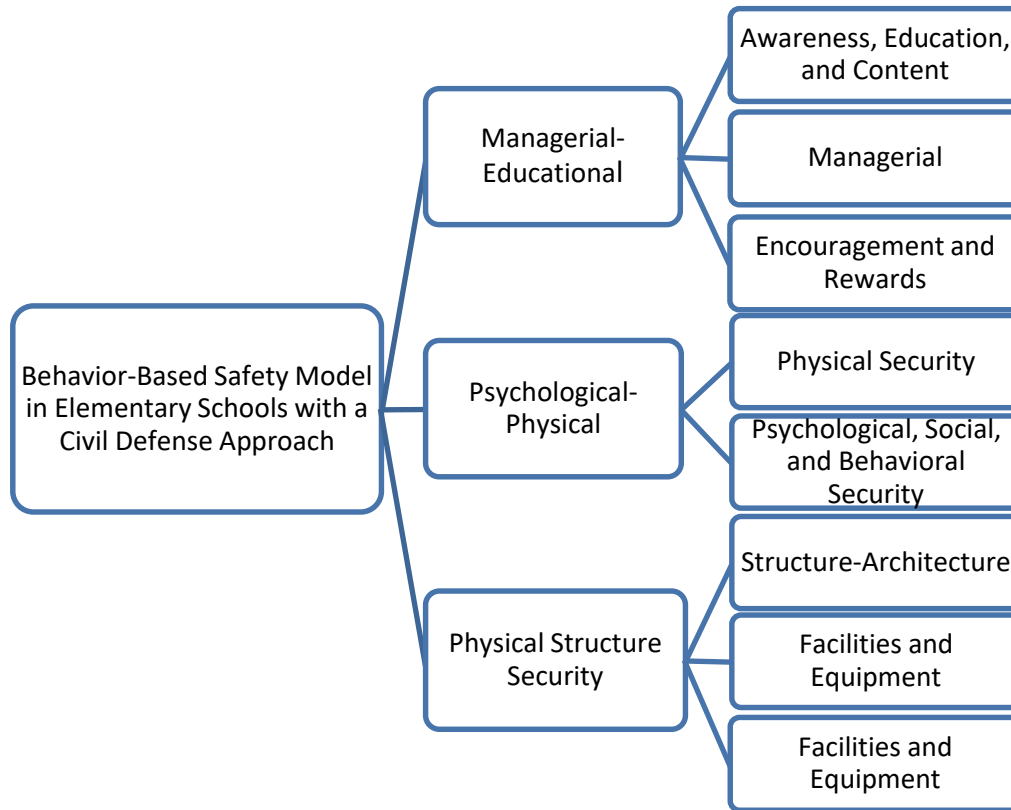
Figure 1: Conceptual Network of the Organizing and Basic Themes for Designing and Validating the Behavior-Based Safety Model in Elementary Schools with a Civil Defense Approach

Discussion and conclusion

The first organizing theme was "Psychological-Physical", which aligns with the findings of Cooper (2009) and Astor & Benbenishty (2022). Based on the interview findings, in explaining the mentioned theme, it was determined that the most significant physical and psychological changes occur during childhood, and these changes manifest in adulthood. Therefore, alongside providing education to students, attention must also be given to this concept, i.e. their physical and mental health. With the beginning of the school year and students' presence in school, the importance of their psychophysical and physical conditions becomes evident. Therefore, paying attention to ergonomics in schools and considering individual differences or capacities of students are essential in planning. It is necessary to prioritize the tranquility, safety, and physical and mental health of students in education. In order to address and resolve family, educational, health, and training problems of students and to develop their and their families' mental and psychological health, family counseling and guidance centers should seriously work at the regional level. These centers should consist of executive and specialized counseling staff who, with appropriate facilities and equipment under the supervision of parents' and teachers' associations, provide counseling services to families and their children. They should cover important aspects such as physical, social, and nutritional health, disease prevention methods, security and personal safety (medical examinations), avoiding bullying, driving qualifications, transportation regulations, parental

opinions, and similar matters, all of which needing to be fully examined and evaluated. In the current circumstances, it is more necessary than ever for students to feel responsible for taking care of themselves and their families. They should understand that if any of the mentioned insecurities or similar issues arise, the conditions become unsafe not only for themselves or their families but for the entire community. It is worth noting that investing in the promotion of students' physical and mental health is a valuable indicator towards growth, development, justice, and social welfare. In line with the importance of this concept, the results of Sharifirad et al.'s study (2021) revealed that generally, the physical health status of students was undesirable. Therefore, in addition to implementing self-care programs, it is recommended to observe oral and dental hygiene, evaluate visual and auditory health, maintain proper nutrition, and engage in exercise. It is emphasized that these factors are influenced by various factors. Among these factors, the relationship between emergency electricity and proper arrangement of physical equipment proportionate to the anthropometric dimensions of students is significant. Furthermore, considering the principles of ergonomics and the emergency conditions, various aspects of health and poverty should be considered since the more deprived areas are, the lower the multidimensional health can be assumed. Educational justice and equality, poverty alleviation policies in schools, and empowerment contribute to the sense of belongingness to the community, leading to feelings of efficacy, self-worth, and ultimately physical, psychological, social, and health well-being of students. The educational system, especially schools, should empower and educate families about the growth of the mentioned health aspects in order to standardize norms and values. In many cases, schools can compensate for the inefficiencies of families in fulfilling this duty.

The second organizing theme was "Managerial-Educational", which is consistent with the research of Cooper (2009), Browna (2015), Chadderton, (2015), Abbott et al., (2015), Al-Hemoud & Al-Asfoor, (2006), and Goudarzi (2022). The analysis of the findings indicated that the head of the educational unit must understand the purpose of designing and implementing a civil defense approach in schools and for students and be familiar with all its aspects, both general and specific. All these efforts are aimed at nurturing growing generations for whom they are responsible and encouraging them to utilize their knowledge, awareness, and diligence in all aspects of non-lethal defense in schools. Management should recognize non-lethal defense as a suitable platform for the sustainable development of the nation's capabilities, a support for national sovereignty, and aligned with tension reduction policies. Besides, it should understand that the best strategy for defense, one of the most important deterrents, is to increase students' resistance threshold through the most sustainable, cost-effective, and peaceful means. The best and most appropriate way to reduce risks and vulnerabilities is to design and implement strategies to develop its elements, keeping it at the forefront of scientific and research efforts and transforming it into a common culture in schools. Disseminating educational and cultural content in both physical and virtual spaces is one of the actions that can be taken to promote a culture of non-lethal defense and raise students' awareness. Humans have always sought to create safety in their living environment and endeavored to distance themselves from life-threatening factors. The prerequisite for this type of defense is to identify sensitive and vulnerable points and create the necessary conditions to prevent potential harm. One area that should be addressed in non-lethal defense education is how to counteract cultural invasion and aggression threatening our students. In this regard, we must take necessary defense measures, with the most important being raising awareness among students and parents in this area.

The best place to create the necessary culture to counter various threats and familiarize the future generation with it is education and schools. Given the seriousness of the threats posed by soft enemies in the form of cultural NATO, teachers, parents, and cultural, ethical, and educational mentors must join forces to mitigate these threats so as not to jeopardize the nascent generation. In the present paper, we have attempted to present the key strategies and skills in a simple and clear manner for the education system and particularly for teachers and educators. We hope that it will be useful and constructive.

The third organizing theme was "Physical Structure Security", which is in line with the findings of Cooper (2009), Browna (2015), Astor & Benbenishty (2022), Al Zeedi, Al Waaili, Al Hakmani & Al Busaidi (2020), Goudarzi (2022), and Brandon, (2011). Regarding to the full explanation of this theme, it was concluded that adherence to precise technical principles in the design and execution of structures, which ensures their safety, is essential. Neglecting or overlooking these principles can jeopardize the safety of individuals in schools in the future. Hence, sufficient attention should be paid to the employment of qualified engineers knowledgeable about resilience and to adhere to all principles related to design/engineering, using appropriate resources and materials to ensure the desired safety of the building. Therefore, it is recommended that schools, in an appropriate position as a hub of the neighborhood, establish themselves and are accompanied by resilient structures, adhering to technical principles, and considering the potential for crises and environmental conditions. These structures should include multi-purpose shelters capable of providing services to the neighborhood, sustaining educational activities, as well as emergency housing for the population in crisis conditions, and be equipped with prepared and trained students, teachers, and staff for crises. Similarly, having the necessary services and infrastructure for the population under coverage in crisis conditions, all equipment and facilities purchased by the Ministry of Education, Development, and Reconstruction Organization for schools along with fixing equipment should be procured. Meanwhile, certain specific principles of passive defense in educational buildings are necessary to be observed, including ensuring that there are no vital and sensitive centers within a radius of 1000 meters from the school, but that medical centers and open green spaces are nearby. The structure should have a secure room on all floors, with a maximum of two floors in elementary schools, completely safe with adequate access to emergency exits and sufficient distance for rapid and easy exit in case of emergency. Measures should be taken to secure against the collapse and inward projection of glass shards. Immediate fire suppression capability and access to vital services such as firefighting should be provided within a maximum of 3 minutes. Shelter exits outside the school with an appropriate radius (minimum of 20 meters) should be provided, along with the ability to transfer all facilities, documents, and key personnel to secure locations within a limited time frame (maximum of 90 minutes), and rapid conversion of these buildings from educational to temporary housing or emergency hospitals should be facilitated.

Education and upbringing are central to sustainable development. Advanced countries prioritize education in their economic and social programs. Students are the primary target of education and upbringing in all areas, and among all public places, students in schools are the most vulnerable group to events and disasters. Accordingly, the mission of education and upbringing, in addition to teaching and nurturing, falls primarily on the school authorities. Hence, all citizens must feel responsible and be present in the field to achieve the goal of educational policies towards the students' social well-being. However, its implementation is the responsibility of the educational staff and teachers. Teachers are obligated to execute these policies in line with this objective. Education and upbringing involve preparing guidelines for passive considerations in

school design and creating a school safety movement, with the participation of student mobilization and the mobilization of educational resources. Making the implementation of passive defense considerations mandatory in the construction of new schools, establishing technical offices for passive defense in the Ministry of Education, utilizing the expertise of engineering mobilization for the necessary studies and designs, and fostering a sense of participatory involvement among the main pillars of the educational system (officials, students, and parents) are essential steps. The country's schools at various educational levels, with populations of millions scattered across all parts of cities and villages, differ in terms of psychological, physical, and spiritual health, construction, and equipment. There are differences in the quantity and quality of requirements and foundations for addressing these issues. Moreover, millions of students interact daily with the lives of all families. The establishment of new secure schools and the securing of existing schools have contributed to the mental safety of families and students.

Recommendations:

- Practical Recommendations

It is essential to plan and implement strategic and practical workshops with "specific, clear, and categorized" goals for the implementation of a BBS model in elementary schools with a civil defense approach. These should be designed and organized by "responsible institutions such as the Ministry of Education, universities, and related teachers in education and learning".

While these results theoretically have the potential to be transferred to elementary schools, they do not cover other grades in lower and upper secondary education across the country. It is recommended that future research also focus on middle and high school education, as well as studies in underprivileged schools and regions or deprived areas, categorized accordingly.

Limitations:

Limitations beyond the researcher's control included disruptive variables, such as the training of personnel, and the lack of cooperation from a larger number of sample participants in answering the questionnaire.

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