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Crisis Management Preparedness in Greek Primary Schools: How Centralised Systems Constrain Principal Leadership

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Abstract. Purpose: This study examines crisis management preparedness among Greek primary school principals within a centralised educational system, using a hypothetical earthquake scenario to understand leadership responses across prevention, response, and recovery phases. Design/Methodology: This qualitative study employs scenario-based semi-structured interviews with 10 Greek primary school principals. The theoretical framework draws from the PREPaRE model's three crisis management phases. Data were analysed using thematic analysis to identify patterns in leadership decision-making, personality traits, and influencing factors. Findings: This scenario-based qualitative analysis reveals gaps in crisis readiness tied to structural centralisation in Greek schools. Principals demonstrate systematic decision-making across all crisis phases but exhibit limited autonomous preparedness due to centralised Ministry of Education regulations. Key personality traits include calmness (100%), preparedness (100%), and collaboration skills (100%). However, principals lack risk-taking and innovative approaches, adhering strictly to predetermined protocols. Effective cooperation and communication facilitate crisis management, whereas shock, inexperience, and panic serve as inhibiting factors. Research Limitations: Small sample size (n=10), convenience sampling, scenario-based rather than real crisis data, and focus on one national context limit generalisability. Practical Implications: Centralised educational systems may inadvertently constrain effective crisis management by limiting principal autonomy. Schools need context-specific crisis plans, enhanced training programs, and greater decision-making flexibility to improve preparedness. Originality: The study is the first to systematically examine crisis management preparedness in Greek primary schools, revealing how centralised educational governance affects leadership crisis responses and highlighting the tension between standardised protocols and contextual flexibility.

Keywords: crisis management preparedness, Greek primary schools, principal leadership, crisis leadership traits, facilitating and inhibitory factors, centralised educational systems

1. Introduction

Educational institutions are experiencing a growing need to address crises while protecting the security and well-being of teachers, staff, and students. The international literature links several concepts to crises, such as inevitability, emergency, and contingency. According to Fink (2005), a crisis is an unforeseen series of circumstances calling for a quick response and decisive action. He further describes a crisis as a prolonged event indicated by warnings before it occurs, which may have a positive or negative impact. Schools might need to negotiate crises related to health (e.g. pandemics), safety (e.g. natural disasters or violence), or organisational instability, which might have negative consequences for school members' psychological and physical health, learning outcomes, school operations and life, and local communities (Ertem, 2024; Gounaropoulos, 2008; Karasavidou & Alexopoulos, 2019). However, as schools address crises in different ways, some are heavily affected, whereas others escape unscathed. Research indicates that these variations are caused by how school principals respond to emergencies and thus determine the consequences or the time it takes for schools to be restored (Kitamura, 2019; Simmons & Douglas, 2018). For schools to function effectively in crisis situations, principals must be adequately prepared and make effective decisions (Murawski, 2011). By integrating crisis preparedness into school practices and policies, school leaders can more efficiently respond to crises while ensuring the smooth operation of teaching and learning and well-being of all members. In this vein, there is a need for proactive planning, preparedness, and preventive coordination across all school levels and among principals, teachers, students, and external stakeholders (Ertem, 2024). However, what insights are available regarding the ability of principals to handle school emergencies successfully? Do school principals have the power, ability, and adequate preparation to manage crises? Although the literature indicates that strong school crisis management strategies and plans are necessary, thorough investigations in this field remain scarce (Wu et al., 2021).

In the international and local research context, Huck and Zhang (2021) provided a comprehensive guide to crisis management that integrates practical advice from school administrators and teachers. Similarly, Sokol et al. (2021) comprehensively reviewed evidence-based interventions in schools following a crisis to support effective post-crisis solutions. Karasavidou and Alexopoulos (2019) examined Greek elementary school teachers' attitudes and beliefs regarding school crisis management preparation in schools. Debeş (2021) explored teacher attitudes towards managing school crises, and Çobanoğlu and Demir (2022) found a somewhat positive and significant link between corporate/organisational culture, leadership agility, and crisis management. However, existing studies appear to focus mainly on the crisis response phase and aftermath and teachers' perspectives without relating their specific focus to principal preparedness. Consequently, research on crisis management among educational leadership remains scarce or continues to display major variations, especially concerning leaders' crisis management abilities, thus calling for further empirical investigation and development of conceptual frameworks (Harris, 2020; Schechter et al., 2022; Striepe & Cunningham, 2022). Therefore, this study attempts to provide important insights into crisis management preparedness among primary school principals, revealing both strengths and significant limitations.

Moreover, although crisis management is applied differently across countries, which can centralise or decentralise their policies (European Commission, 2020), empirical studies exploring the school macro-context's influence on educational leadership crisis management preparedness are lacking. Flexibility and autonomy positively contribute to organisational effectiveness and capacity in crisis management, thus ensuring organisational resiliency (Lakovic, 2021). Flexibility in school management enables principals and schools to create rapid response mechanisms adapted to the specific context and localised needs and requirements (Beauchamp et al., 2021). Contrastingly, centralised educational systems present distinct challenges for crisis management that differ significantly from those faced by decentralised systems (OECD, 2016). Bureaucracy establishes rules, regulations, and routine hierarchy to achieve schools' and members' compliance. Although the school

hierarchy and rules serve as coordination and support mechanisms for teachers and the regulations help solve problems during a crisis (Schechter et al., 2022), traditional controls impede school principals. Therefore, the urgency and complexity of crisis management should be investigated in educational macro-contexts, particularly in centralised systems where principals may have limited autonomy. By investigating school leaders' emergency management preparedness in the Greek school system, which is highly centralised (school autonomy: 26.4%) (OECD, 2016), this qualitative study offers a unique perspective on how centralised governance structures affect school crisis management, contributing to research conducted in educational settings. Notably, empirical studies exploring how Greek principals prepare for and act during crises are lacking.

Using a hypothetical scenario of a crisis affecting a school, this study investigated Greek school principals' crisis management preparedness based on the three crisis management phases of the PREPaRE model: prevention, response, and recovery. The preventive phase involves adopting proactive measures before problems occur. The response phase begins when a crisis affects a school, and corrective actions are needed to guarantee its continued existence. Finally, the recovery phase focuses on a school's capacity to recover from an increasingly intense crisis (Claeys & Cauberghe, 2014). Scenario planning aims to create an uncertain situation with multiple changes, including good or bad, and expected or unforeseen. Thus, various changes, opportunities, and threats that may appear in the future can be identified (Morgan & Hunt, 2002).

Although the Ministry of Education has issued regulations such as the 'Internal Regulations of the School Unit and the Memorandum of Action for the Management of Fires, Extreme Weather Events, Technological Disasters and Chemical, Biological, Radiological, Radioactive and Nuclear Incidents' and the 'Draft Memorandum of Action for the Management of Earthquake Risk in the School Unit' (Government Gazette of the Hellenic Republic, 2020), Greek primary schools continue to lack long-term school-level future planning, updated and streamlined plans, and preventative measures (Karasavidou & Alexopoulos, 2019; Saitis, 2008).Consequently, the tension between structural and theoretical standardisation and contextual adaptation represents a critical challenge for Greek educational system seeking to balance consistency with effectiveness in crisis response. Therefore, this study aimed to interpret principals' crisis management preparedness based on prevention, response, and recovery crisis management phases, principals' personality traits related to crisis decision-making, and facilitating and inhibitory factors in the Greek highly centralised school system, thus providing new insights into how governance structures and standardised approaches affect crisis preparedness in school settings.

2. Literature Review

2.1. Defining School Crisis

The term 'crisis' has various definitions in organisations. By synthesising them, we can identify core characteristics in high-consequence events that threaten an organisation's viability, such as unpredictability, urgency, and the need for rapid decision-making and response (Beilstein et al., 2021; Schechter et al., 2022). Likewise, in the school context, crises are broadly defined as unpredictable, intrusive, urgent, and painful experiences that require school leaders to take rapid and decisive actions (Smith & Riley, 2012). MacNeil and Topping (2007) defined school crises as unexpected difficulties that must be resolved urgently to return to normal conditions.

Crises can severely hamper the operations of organisations, including schools, potentially detrimentally affecting their goods and services, reputation, and future revenues, even causing organisations to fail. Moreover, crises may alter an organisation's long-term objectives; compel it to reconsider its procedures, fundamental mission, and values; and cause long-term harm to the organisation and its stakeholder relationships (Coombs, 2015; Gainey, 2010). However, in the

educational context, crises have also negative effects on teaching processes, learning results, and leadership aspects (Hill-Berry et al., 2024). Additionally, unexpected events and situations that pupils experience affect their psychological and physical health, and daily life and actions, not only in school settings but also in the wider social environment (Ertem, 2024; Gounaropoulos, 2008; Karasavidou & Alexopoulos, 2019).

Therefore, educational crisis management differs from general crisis management. School crisis management is determined by societal structures, social procedures, inequalities, and collective behaviours, and has a social impact on communities (Chandrappa & Vijayendra, 2019). During a crisis or in the aftermath of a natural disaster, school leadership must simultaneously consider the immediate and continual needs of the staff, students, institution, and wider community (Hill-Berry et al., 2024; Sellars & Imig, 2021; Striepe & Cunningham, 2022; Thornton, 2021). School principals aim to provide care and support and communicate effectively with teaching staff, parents, authorities, and the media; make operational, managerial, and logistical decisions quickly and under pressure; assess the needs of communities and families; search for resources; and communicate the concerns of stakeholders, parents, and the community's voice to higher administrative and governance levels (Lenarduzzi, 2015; Potter et al., 2020). Social capital is aligned with trust, mutuality, and networks between schools and the local community or authorities, thus increasing resilience by facilitating collaboration and communication, resource sharing, and reciprocal aid among members, promoting the well-being of both the school and local community (Chandrappa & Vijayendra, 2019).

Moreover, school crisis events vary in their specific characteristics, effects, action plans, and circumstances (Karasavidou and Alexopoulos, 2019; Schechter et al., 2022). Specifically, crises in the educational context can be divided into five categories (Brock et al., 2005; Kano et al., 2007):

(1) ***Non-emergency incidents*** include events such as the death of a student or staff member either during or outside school hours.
(2) ***Incidents requiring immediate medical attention*** are those associated with injuries, whether intentional or accidental, as well as changes in health owing to external factors, pathological causes, or food poisoning.
(3) ***Immediate emergencies*** are events that occur on school premises, necessitating an immediate response and intervention from competent bodies and services.
(4) ***Natural disasters*** include extreme natural phenomena, such as earthquakes, floods, landslides, fires, and storms.
(5) ***Indirect emergencies*** occur off school premises but in close proximity and are characterised as emergencies because they directly affect the school's operation at a later stage. Such incidents may result in a school being evacuated to protect students and staff.

School principals should improve their ability to cope with and respond to these crises by engaging in comprehensive planning and designing preparedness measures, thus empowering school members and the community to respond to various crises effectively (Brock et al., 2016; Karasavidou & Alexopoulos, 2019). This also creates various prerequisites regarding school crisis leadership traits, actions, behaviours, and attitudes (Wu et al., 2021). Consequently, based on these elements of school crises, the authors constructed a hypothetical scenario for interpreting school leadership crisis management.

2.2. Crisis Leadership in the School Context

School leadership under crisis management conditions has been defined as 'dealing with events, emotions, and consequences in the immediate present in ways that minimise personal and organisational harm to the school and school community' (Smith & Riley, 2012). Uncontrollable situations occurring either within or outside school life require an effective and immediate response that forces school principals to use various tools and practices to make effective decisions, utilise all available information, handle time constraints, and protect human life (Ertem, 2024; Murawski, 2011). However, principals face additional challenges when addressing school emergencies (e.g. instability,

ambiguity, lack of information, low quality of accessible information, time restrictions, and lack of resources) that may impede their ability to make decisions during a crisis (Boin et al., 2009; Paton, 2013; Rosati, 2001). Thus, a different type of school management than that applied at other times is required to cope with unusual crisis situations (Çobanoğlu & Demir, 2022; Striepe & Cunningham, 2022). This requires leadership skills to assess a situation's complexity, establish communicative channels with all stakeholders and collaborate with them, employ recovery strategies, self-reflect on what was learned during the situation to help resolve future crises (Gigliotti, 2019; Stern, 2013, as cited in Chatzipanagiotou & Katsarou, 2023; Thornton, 2021; Wu et al., 2021), adapt to different roles and responsibilities, make complex decisions, and manage complex professional environments (Striepe & Cunningham, 2022). Professional emotional intelligence is significant attribute needed to manage crisis conditions, as school principals must handle managerial duties and emotional problems during crises (Ahtiainen et al., 2024; Argyropoulou et al., 2021; Striepe & Cunningham, 2022; Thornton, 2021). Resilience, innovativeness and creativity, and resourcefulness are also crucial traits that educational leaders need when coping with school crises (Hill-Berry et al., 2024; Osman, 2022).

However, a country's characteristics (laws and rules), educational policy (centralisation or decentralisation), and culture can influence crisis management, crisis leadership, stakeholder reactions, and the organisational effectiveness of a crisis response (Cleeren et al., 2017). Specifically, in centralised school systems, crisis management is controlled by the government. Actions and practices are established by the upper level of government through top-down decision-making, thus reducing decision-making based on local needs, requirements, structures, expertise, risks, and coordination mechanisms while increasing compliance with central rules and regulations. By contrast, crisis management in decentralised school systems provides more flexibility and autonomy for adapting practices and decisions based on local circumstances, institutional structures, and culture (European Commission, 2020). Regarding general crisis management, comparative studies have indicated some variations among countries regarding crisis management centralised to upper administrative bodies/authorities (e.g. Denmark, Germany, Norway, and Turkey) or decentralised at local/regional levels (e.g. the United Kingdom, the Netherlands, Sweden, and Spain) (Christensen et al., 2015; Kapucu et al., 2009). However, in the educational context, empirical international studies on the macro-context (school autonomy) impact on school crisis management and comparative international studies on crisis management in centralised and decentralised educational systems are lacking. Considering the significance of crisis leadership traits and facilitating and inhibiting factors, this study aimed to reveal school principals' perspectives on what helps or impedes them during crisis management in a highly centralised school system which emphasises adherence to predetermined protocols rather than adaptive leadership responses tailored to specific contextual demands. This contributes to our understanding of educational crisis management by highlighting the critical role of governance structures in shaping leadership effectiveness and revealing important tensions between centralised control (macro-level policies) and adaptive leadership (school unit's micro-level dynamics).

2.3. Theoretical Framework of School Crisis Management

Regarding how quickly a school crisis occurs or evolves from internal organisational issues, the three interconnected phases of prevention, response, and recovery define crisis management (Coombs, 2015). This study examines how prepared school principals are to address each phase of a crisis. Accordingly, this study uses the theoretical framework of the PREPaRe model (NASP, 2020), which emphasises school crisis management and includes three basic phases: prevention (protection and mitigation), response, and recovery. The PREPaRe acronym refers to the following: P: Prevent and Prepare for crises, R: Reaffirm physical health and perceptions of security and safety, E: Evaluate psychological trauma risk, P a R: Provide interventions and Respond to physical and psychological needs, and E: Examine the effectiveness of crisis prevention and intervention (Brock et al., 2015;

NASP, 2020). The PREPaRe model combines group crisis management, action plan development, collaboration among various competent bodies, and the management and rehabilitation of students' psychological trauma (Brock et al., 2016; Sokol et al., 2021). This model was chosen over other crisis management frameworks because PREPaRE is the only model that refers to the school context, was developed by educators for educators, and explains their roles, skills, and responsibilities in school crisis management during the prevention (protection and mitigation), response, and recovery phases. This framework conceptualises school crisis management as unique and requiring its own theoretical and practical model (NASP, 2020). Its design provides a method to help schools cope with the needs of students, teachers, and stakeholders/families following a crisis, thus increasing crisis management capabilities at the local level while simultaneously emphasising mental health and recovery from psychological trauma (Hatzichristou et al., 2011). Notably, the field of school psychology has been established in the Greek school system, and each school is staffed by a school psychologist and a social worker. Therefore, the PREPaRE model provides a template for schools to structure their crisis management efforts comprehensively. This study's use of the PREPaRE model in a centralised school system could provide new insights into how crisis management theoretical frameworks are adapted in a specific educational environment, where leadership autonomy is limited by institutional constraints. Consequently, this study's interview protocol was grounded in the PREPaRe model's crisis management principles and phases of prevention (protection and mitigation), response, and recovery.

According to Yin and Jing (2014), at the prevention stage, assessing possible crisis risks helps managers fully understand the extent and intensity of a crisis, making it easier to create a management plan tailored to their unique context and needs (Brock et al., 2005). To reduce the risk of death and harm, effective planning entails sufficient resources and time as well as rapid and coordinated action. Fink (2002) further categorises the preventive stage into **mitigation** and **planning/protection**. Mitigation involves ongoing efforts aimed at minimising or eliminating long-term risks to people and property, whereas planning/protection focuses on creating a structured action plan and strengthening communication channels with the relevant authorities (Barton, 2001). Principals are vital for fostering readiness and awareness in school communities by encouraging preparedness among staff and students. Furthermore, principals must ensure that everyone receives the necessary training and that crisis management procedures will be implemented effectively (Brock et al., 2005; Kano et al., 2007; Shaw & Goda, 2004). Establishing a communication network in advance to organise and exchange information during a crisis is also essential (Pearson & Clair, 1998).

The response phase begins when a school first experiences a crisis. At this stage, school principals determine the nature, extent, and location of the problem and proceed with corrective actions to guarantee school's continued existence. The numerous activities during this period can be considered the beginning of recovery. Although information flows outside and inside schools and more data are collected for actions (Brock et al., 2005; Fink, 2002), communication routes are frequently constrained under these circumstances, rendering valuable information difficult to collect or unable to reach the intended recipients, thus impeding a prompt and efficient school response (Quarantelli, 1988).

In the recovery phase, an organisation is rebuilt to its pre-crisis state (Fink, 2002). The tactics established and implemented during the early phases of crisis management determine the success of recovery or restoration. This phase aims to mitigate the negative effects of the crisis (Runyan, 2006), while the organisation collects data and learns lessons to avoid or better manage similar incidents in the future (Smith & Sipika, 1993). In schools, the recovery phase aims to fast-track a return to regular activities and learning. A supportive environment is fostered by the substantial care provided to the physical, emotional, and mental health of school members (students, instructors, and parents/guardians) and the organisation's physical restoration (grounds and buildings; Virginia Department of Education, 2007). Although the recovery phase may appear to be the conclusion of crisis management, it signals the beginning of an entirely new leadership cycle. A stronger crisis

management strategy in the future depends on reflecting on lessons learned, necessary enhancements, and achievements. However, when lives are lost, returning to the pre-crisis state is impossible (Shaw & Goda, 2004).

These phases offer a comprehensive crisis response framework for a proactive approach to maintaining the current environment, protecting property, identifying and reducing threats, and saving lives (Bullock et al., 2007).

3. Methodology

This study used a scenario technique. Porter (1985) stated that a scenario is an internally consistent image reflecting a possible future state but not a prediction. Shoemaker (1995) referred to a scenario as a systematic approach to possible future events for making decisions and organising policies. According to Ringland (1998), a scenario refers to an aspect of strategic planning that includes tools and techniques for managing future uncertainties. Sparrow (2000) argued that scenarios can be utilised as investigative tools in the education field. The scenario in this study was based on descriptions of alternative future states that are feasible, internally consistent, and related more to strategic thinking than strategic planning. Five stages were considered (GBN, 2022; Scearce & Fulton, 2004). (1) ***Orient***. All the issues that an organisation must address and the actions of its members are clarified to make decisions on how to address them. Thus, the context is defined, providing a guide for subsequent phases. (2) ***Explore***. This stage identifies any external factors (political, economic, social, or technological) that may affect an organisation in the future, either predictably or unpredictably. (3) ***Synthesise***. Initial planning is based on the two most critical uncertainties threatening an organisation. A narrative emerges, beginning in the present and ending in a hypothetical future. (4) ***Act***. The scenario is implemented, with participants imagining themselves living and acting within the scenario, thereby familiarising the organisation with effective decision-making. At this point, stakeholders should ask themselves if this scenario will be realised in the future, what actions they should prepare for, and whether their actions can potentially lead to a desirable future or prevent a threatening one. The answers to these questions are the scenario's consequences and functions as patterns and insights that can be incorporated into strategic planning for future crisis management. (5) ***Monitor***. The final stage involves creating mechanisms and warning indicators to help organisations monitor environmental changes and adapt accordingly. These mechanisms and indicators enhance an organisation's agility in the face of an uncertain future. This technique was used to collect qualitative data through semi-structured interviews with a hypothetical scenario (see Appendix) describing a crisis in a school. We selected an earthquake as the type of crisis because earthquakes are a common risk in Greece, thus making this scenario highly appropriate for our study. Collected data were analysed based on the interpretive research perspective to identify and interpret principals' views on their school crisis management preparedness.

3.1. Sample and Sampling Process

This study aimed to identify principals' crisis management preparedness in their schools. We used convenience sampling to select school principals who were willing and able to express their views and offer information on school crisis management. We provided the participants with an informed consent letter that included information about the research goal and processes and the researchers' identity, while guaranteeing anonymity, confidentiality, privacy issues, and voluntary participation. Ultimately, we recruited 10 principals of Greek primary schools, each of whom was assigned the letter 'P' and a number as a pseudonym. Table 1 shows the sample's demographic characteristics. The sample size of 10 principals, while potentially adequate for qualitative research, is quite small and limits the generalisability and transferability of the findings, particularly given the diverse school

contexts and principal backgrounds that could affect crisis management approaches. The sample demographics of our study show some diversity in experience and school characteristics, which might also affect our findings because different types of school leadership might respond differently to crisis scenarios. Moreover, the convenience sampling approach might be responsible for potential bias or affect the representativeness of our findings.

3.2. Data Collection

We collected data through semi-structured individual interviews using predetermined questions. These questions were aligned with the crisis management phases and scenario research technique, and we designed the interview guide/protocol accordingly. The scenario topic was a 'high-intensity earthquake during working hours with material damage, injuries, and one death'. We provided the principals with six cards to read and answer 16 related questions (see Appendix). The interviews were conducted online using the WebEx platform. Each interview lasted approximately 20–40 minutes and was audio-recorded and transcribed by the authors. The duration of our 10 interviews combined was 247 minutes (4 hours), and 79 transcript pages were analysed. A pilot study was initially conducted in the area. This study received ethical approval from the Human Research Ethics Committee of the University of Western Macedonia (No. 18/13-12-2021).

3.3. Data Analysis

Qualitative data were subjected to thematic analysis without specialised tools, including coding patterns and emergent themes based on deductive analysis. We performed an analysis for each crisis management phase to identify and record emerging themes and coding patterns. Initially, we transcribed the audio recordings into written text without making any corrections to the participants' words. Participants' reactions, pauses, and body movements were also recorded. We familiarised ourselves with the overall dataset and conducted an in-depth examination of what the participants shared by carefully reading and rereading the written data, aiming to link their experiences to the existing literature, especially ideas around the three crisis management phases. Subsequently, we identified data segments that appeared important, meaningful, and connected to the crisis management phases and assigned them code labels. If a code was identified in a participant's data, the number 1 was noted. Otherwise, 0 was noted. Thus, the frequency was obtained for each code. After completing the coding process, we combined related codes to identify and interpret key emerging themes. Thereafter, we organised these themes under a thematic axis. For each theme, we reviewed all relevant coded data against the entire dataset, and individually coded extracts to ensure consistency and accuracy. Each theme was named (Braun & Clarke, 2022), and relevant quotes were selected to provide context for each theme and reflect the participants' viewpoints. The quotes were translated from Greek to English.

3.4. Reliability, Validity, Reflexivity, and Positionality

To ensure inter-rater reliability and avoid selective perceptions or biased interpretations, this study's two authors and one independent researcher independently analysed the same qualitative dataset and then compared their findings for similarities and potential variations. We also created and shared a case study protocol (see Appendix) and database (Tables 2–6) to allow other researchers to replicate our study (Cole, 2023). In this vein, the research process, data collection and analysis practices, and sample are particularly described. Regarding validity, to ensure the integrity of our methods and that our findings accurately reflected our data, we made efforts to present the participants' perspectives and accounts clearly and accurately, avoiding the inclusion of the researchers' personal views, perspectives, and experiences. We provided this task with considerable attention because we acknowledge that multiple realities should be separated (Noble & Smith, 2025). Therefore, we

ensured *descriptive validity* by not distorting the collected information and reported facts. Furthermore, the participants checked the transcripts and all confirmed that we had transcribed verbatim what they had said during the interviews. We also ensured *interpretive validity* by aiming to capture and consciously interpret the meaning of the participants' words and their hidden intentions, thus simultaneously considering verbal and nonverbal communication, which were both transcribed. Moreover, we ensured *theoretical validity* by aligning our findings with this study's theoretical framework (PREPaRE model) (Hayashi et al., 2019).

Regarding researchers' reflexivity, both authors reflected, either alone or collaboratively, during the entire study on how they conduct/conducted the interviews, how they decided the study tools and methodology, which results were revealed and how, and what they could change next time, thus writing a brief paper and creating mindmaps. Regarding positionality, both researchers had experience in the teaching profession (as primary school teachers) but not in the position of school principal. The participants were aware of the researchers' identity, and viewing the researchers as colleagues with similar experiences and knowledge of school life made them feel more comfortable. However, because the researchers did not have any experiences or assumptions related to being in a leadership position or crisis management as school leaders, participants felt comfortable expressing their thoughts, feelings, and perceptions without worrying that they might be judged by another school principal. Therefore, the researchers were neither fully insiders nor outsiders, providing a balance between the researchers and participants in terms of their feelings and understanding of their distinct roles. Moreover, the researchers and participants did not share a professional relationship (e.g. one is the supervisor of the other), which could require school principals' obligatory participation in the study. Combining reflexivity with positionality, we made efforts to remove subjectivity from our beliefs, backgrounds, and biases and did not incorporate this into our interpretations. We aimed to adopt a 'tabula rasa' approach and distance ourselves from the studied phenomenon of school crisis management. Therefore, we attempted not to think about, feel about, or interpret a school crisis management condition or how we would act in a particular way, setting aside our theoretical and practical knowledge, experiences, and views (Goundar, 2025; Olmos-Vega et al., 2022; Yip, 2023).

4. Results

4.1. Prevention Phase

Regarding the thematic axis of the 'prevention phase', two themes and 11 codes emerged (Table 2). The first theme refers to school principals' decisions on in-school actions, mainly focusing on addressing functional and operational aspects and school structures (mitigation phase), whereas the second theme refers to decisions regarding preventive actions, mainly focusing on collaboration with external stakeholders (relevant authorities, school building committees, and parents). Notably, some principals emphasised ensuring resources and funds by external stakeholders, while others emphasised procedural compliance, providing information to and receiving approval of needed repairs from the relevant authorities. Specifically, the findings reveal that, during the 'prevention phase', school principals would make **decisions on in-school actions** (first theme: 5 codes) aiming to reduce or eliminate long-term risks that threaten human lives or property, before the crisis. These refer to repairing damage to buildings, stairs, halls/classrooms, and courtyards (100%), organising courtyards (100%) and the student population (30%), increasing on-call duties time (30%), and removing dangerous objects from schools (20%). P1 noted, *'I have planned to install anti-slip mats on the stairs... for the classrooms, I have taken care of repairing the plaster and windows with the school committee's money... for the yard, I have made sure that the space is appropriate so that the children can gather safely'.* Furthermore, P2 mentioned, *'I intend to place small classes in the narrow classrooms, remove dangerous objects such as bookcases, place non-slip carpet on the stairs, delimit the yard by each class (students of each class in their own space)'.* Finally, P7 stated, *'The Teachers'*

Association will meet to propose solutions regarding the courtyard for a safer break, such as adequate on-call duty time and possibly increasing it and separate space for each class'. Based on the PREPaRE model, these principals' decisions refer to the mitigation phase, during which they made ongoing efforts to minimise or eliminate risks to people and property.

Moreover, the findings reveal that principals would make **decisions on preventive actions** (second theme: 6 codes) (Table 2), including information of relevant bodies/authorities (100%) and collaborating with them and parents (100%), creating crisis action plans (uniformly mandated by the Ministry of Education) (100%), promoting training during the school year (100%), using appropriate existing school resources, (50%), and searching for financial resources or sponsorships (20%). Specifically, P3 mentioned, *'After we send all the necessary documents to the Municipality, we will collaborate with the school buildings committee, we will inform the parents about the school's problems, and we will do everything we can ourselves with our own money. Of course, at the beginning of the year, according to the circulars, we organise protocols for managing critical incidents and natural* disasters*, and we conduct earthquake drills five times a year'.* P5 stated, *'I have put pressure on the Municipality with detailed documents that I have sent. We have cooperation with the Municipality, with the school buildings committee, and with any other competent body I can for funding…. However, with my own workers and school money, I repair what I can. We conduct earthquake drills regularly and, of course, we have action plans as defined by the Ministry…. We may organise a charity gala to raise money or there may be some sponsorship from a parent'.* Furthermore, P9 noted, *'We are cooperating with the Municipality and the responsible committee of the ministry for school buildings, and we have sent all the documents needed to solve the problems.... We are preparing with earthquake drills, as defined in the action plan'.* These findings refer to protective actions focused on creating a structured action plan and strengthening communication channels with the relevant authorities. However, action plans are uniformly mandated by the Ministry of Education rather than being school-specific or context-adapted.

Based on the PREPaRE crisis model, these findings indicate that in the prevention phase, school principals attempt to prevent and prepare for crises (P) by improving physical safety in the school and the preparedness and response capabilities of staff through assessing the environmental design, natural control, and vulnerability, monitoring threats, creating guidance for staff and students, providing a caring and supportive school environment, acquiring crisis intervention resources, removing students from dangerous or harmful situations, and ensuring connections with stakeholders (Brock et al., 2015; NASP, 2020).

4.2. Response Phase

Regarding the thematic axis of the 'response phase', nine themes and 31 codes emerged (Table 3). Specifically, based on the scenario, when an earthquake occurs at school, principals would attempt to cope with nine issues, including taking initial crisis management actions, managing human resources and materials, making decisions regarding trapped or missing students, setting priorities, and managing panicked parents, casualties (injured people and death of a teacher), supervisors, and the media. Regarding their **initial crisis management actions** (first theme: 4 codes), after stepping out of their office and seeing a fallen bookcase in the hallway, broken windows, and plaster that had fallen from the walls and ceiling, the principals stated that they would mainly implement the crisis action plan (uniformly mandated by the Ministry of Education) (100%), identify risks in the area (80%), and inform relevant bodies/authorities and parents (70%), making simultaneous efforts to ensure the safety of students and teachers (60%), and ignoring their own safety in some cases. Notably, some discrepancies were revealed among the principals' perspectives, with some principals expressing a willingness to risk their own safety, whereas others emphasised procedural compliance. Specifically, P1 mentioned, *'I am sure that the students have hidden under the desks as in the earthquake drill; I*

consecutively press the bell, ... I go outside to coordinate the procedures that everyone knows by the decision of the Teachers' Association. I see if the students can get through safely, otherwise I order them to go through another point… I immediately call the authorities'. P6 stated, *'I notify the students immediately, like we do in earthquake drills. I don't care about my own safety. I immediately go outside with my whistle to direct the students safely so that they all go out into the yard. We all follow the earthquake plan and everyone knows what to do…., but I have to be close to the children. I immediately notify the fire department, the police, and the Municipality'.* Finally, P2 said, *'I immediately alert the students with the bell. I grab the loudspeaker, the phone, and the list of children's phone numbers. I don't care about my own safety. I run to give the order to evacuate the school. Each teacher knows their responsibilities…. I make room for the children to pass through the broken windows, and I shout at the children to be careful'.*

Moreover, principals mentioned that they would try to utilise **human resources and manage the materials** (second theme: 4 codes) (Table 3) during the crisis, noting that they would cooperate with teachers who had previous training or were responsible for these responsibilities/tasks (100%) and those who could help with the restoration of minor damages (60%). They would coordinate human resources (60%) and utilise appropriate materials and means (40%). However, some principals focused on managing human resources, particularly teachers' knowledge and responsibilities, while others emphasised materials and means. Specifically, P1 stated, *'The responsibilities have been distributed by a decision of the Teachers' Association (first aid kit, fire extinguisher), the teachers are in the yard with their classes, each in their own space…, if I can, I will collect the glass and plaster with another colleague. I need to check for injuries'.* P2 further noted, *'Responsibilities have been divided and everyone knows their job. Teachers will help with the damages if they are minor...'* P8 added, *'Our main concern is the safety of the children and how they will leave. Everyone knows how they will react…. Of course, the teachers will not leave; they will do everything they can…if I can, I will gather what I can'.*

In terms of principals' **decisions regarding trapped or missing student** (third theme: 5 codes) (Table 3), they stated that they would inform competent/responsible bodies (ambulance, fire department; 100%), provide psychological assistance (100%), search alone (70%), and with the teachers responsible (50%) for the missing student, and inform the child's parents (20%). Notably, some principals expressed willingness to inform the student's parents, whereas others focused on managing the situation only in collaboration with teachers and the relevant authorities and services. Specifically, P3 mentioned, *'We reassure the students… No panic. I go with some teachers to locate the trapped student… we try to locate the teacher. There is a responsible teacher designated in the memorandum who will free the student…. Then, we notify the authorities (fire department, emergency medical services, Municipality) about the damages and the parents to pick up their child'.* P6 stated, *'The responsible teacher…. looks for the trapped student, always safely. I reassure the teacher and the agitated students. I immediately inform the Department of Primary Education, the Municipality, and the parents'.* Finally, P8 noted, *'I go with the responsible teacher to check on the student. I have noticed that someone is missing. The responsible teacher goes to see what is happening... and to provide psychological support. We all need to cooperate (Municipal authorities, Department of Primary Education, teachers)'.*

Additionally, principals mentioned that their **priorities** (fourth theme: 3 codes) (Table 3) during the crisis would mainly be student and teacher safety (100%) and psychological assistance (100%), with few referring to the need to restore building damage (30%). Specifically, P3 stated, *'First priority is the safety of the children and their peace of mind, the safe evacuation of the building by everyone, and finally the identification of damage and its restoration'.* According to P5, *'The priority is the safety of the students, the identification of those trapped, and calming the parents who will have arrived. We are also* reassuring *and supporting all the students'.* P10 noted, *'It's important to count the children and see if anyone is injured. I'm reassuring them as best I can'.* Furthermore, in terms of

attempting to **manage panicked parents** (fifth theme: 3 codes) (Table 3) searching for their children, the principals mentioned that they would provide information by telephone (100%) and offer psychological assistance (100%), while simultaneously adhering to rules (e.g. no entering the school, orderly and safe retrieval of children) (100%). P5 mentioned, *'I have informed them [parents]. I reassure myself first, and then the parents. I keep them out of the school. .... The teachers with supervisory duties are at the entrance of the school and hand each student over to their parent in an orderly and safe manner. The teachers are there until the last student leaves'.* P7 stated, *'Parents are informed... They should not enter the school. Of course, I reassure the parents. The students are waiting for their turn to leave. The small classes go ahead/proceed with their teacher'.* P9 further noted, *'Parents have been informed by phone in advance. Each teacher leads their class in order towards the exit. I am also present at the door, reassuring them and explaining to them that panic and haste do not help'.* Regarding **injured people** (sixth theme: 2 codes) (Table 3), the principals mentioned that they would attempt to ensure that competent individuals (ambulance or hospital staff) (100%) and responsible teachers provided first aid (100%). According to P1, *'First aid is quickly provided to the trapped student, until he/she is transported to the hospital….. The injured students, who are in a safe place, have been taken over by the emergency medical service for first aid'.* P2 stated, *'The seriously injured are taken care of by the emergency medical service. For those with minor injuries, the responsible teacher provides them with first aid, as is usually done'.* Finally, P4 noted, *'The injured are separated in a special area from the rest. The competent teachers provide first aid according to the action plan. The ambulance is also arriving'.* Notably, regarding panicked parents and injured people, all school principals would have similar reactions, with no variations noted in their perspectives.

Principals' decisions regarding the **death of a teacher** (seventh theme: 6 codes) (Table 3) mainly focused on informing relatives (100%) and superiors/supervisors (80%), making efforts to not publicise or disclose human loss (80%), organising actions (20%), providing psychological support (10%), and searching for witnesses (10%). Although school principals' decisions revealed similarities regarding informing the victim's relatives and superiors/supervisors, and not publicising or disclosing the loss of human life, only a few emphasised providing psychological support and ensuring that students remained calm. P4 mentioned, *'(Hesitates-sighs-delays) I am not announcing anything officially to anyone. I inform the Office of the Department of Primary Education. The ambulance is picking up the deceased and taking him/her to the hospital. I will definitely call a psychologist who will announce this tragic event to the students with the appropriate action'.* P5 stated, *'(Has difficulty) This is tragic. I am informing the Principal of the Office of Department of Primary Education and the teacher's family. There may be witnesses who saw the incident, a student or teacher, so there will be some interrogations by the police. Of course, I am not announcing anything...'* P8 further noted, *'I think the students shouldn't learn something about it so they don't get even more upset. We're informing the Department of Primary Education and the family. We're trying to stay calm and following the procedures provided for this case'.*

Principals' **decisions on supervisor management** (eighth theme: 2 codes) (Table 3) referred mainly to providing detailed information (100%) and requesting assistance (30%). However, although most of the school principals tended to provide detailed information to their supervisors, some recognised this as compliance, whereas others viewed it as a necessary action in terms of collaboration. Specifically, P3 stated, *'I am obliged to inform them of exactly what we have done, what damage has been caused, and we will ask for their contribution and support'.* P6 noted, *'I feel a sense of relief. We are co-managers of the crisis. I inform them about everything. We are certainly waiting for guidance on our further course'.* Finally, P10 stated, *'It doesn't stress me out. I inform them of exactly how the school was evacuated, and the students were handed over to their parents.* Regarding principals' **decisions on media management** (ninth theme: 2 codes) (Table 3), they stated that they would forbid the media from entering the school (100%) and would inform them about what

happened after the crisis was over (70%). Meanwhile, although all principals agreed on banning the media from entering the school, only some realised the need to inform the media after the crisis had ended. Specifically, P2 stated, *'I keep them strictly outside the school. When the students and parents leave and I have informed the Principal of the Department of Primary Education and the Municipality so that we can see what to do, then I will contact the media. It is the last resort'.* P5 added, *'I am not surprised. I forbid local media from entering and having their cameras on and taking interviews. We do not give any interviews or any footage until after the police have completed their work'.* Finally, P7 stated, *'In the first phase, I politely ask them to stay outside the school, perhaps with the help of the police'.* All these findings refer to the response phase of the PREPaRE model, during which school principals appear to reaffirm physical health, welfare, security, and safety (R), evaluate psychological trauma risks and monitor stress reactions (E), provide interventions (P), and respond to physical and mental health needs (R). Specifically, they attempt to respond to the acute needs of students and staff, provide physical and psychological support, minimise crisis exposure, recognise the roles and importance of staff reactions and behaviours, locate caregivers and significant others, provide information, maintain a safe school environment for students, and take necessary actions (Brock et al., 2015; NASP, 2020).

4.3. Recovery Phase

Regarding the thematic axis of the 'recovery phase', two themes and eight codes emerged (Table 4). Specifically, the first theme was related to school principals' decisions for the next day, and the second focused on psychological support decisions. For the next day, some principals expressed willingness to assess the action plan and reflect on actions, whereas others emphasised restoring the building. Moreover, although school principals appeared to have similar views on providing psychological support, some expressed willingness to participate the school in it, while others emphasised that psychological support should only be provided by specialists.

Specifically, during the recovery phase, the principals' **decisions for the next day** (first theme: 6 codes) referred mainly to school closure (100%), psychological assistance (80%), building damage restoration (60%), action plan assessment and reflection on actions (60%), searching for financial support (fundraising, donations) (20%), and searching for alternative places or distance learning applications (10%). P1 stated, *'I am going to the school with the responsible services of the Municipality to check the damage to the building, so that the school can operate as soon as possible. If the damage is not repaired, the students cannot return to school. Also, psychological support for the students is necessary so that they can eliminate the fear they have experienced. If necessary, I will arrange for a psychologist to come'.* P2 further noted, *'The integrity of the students is above all else. We will look for other places for classes, or if distance learning can be done...for as long, it will take for the school to reopen. There will also be updated information and an assessment of the actions taken, what could have been avoided and what we will do in the future'.* P3 said, *'The priority is to repair the damage so that the school can operate as soon as possible, the students can overcome the shock, and the colleagues can continue their work.... There will be an assessment of what went right and what went wrong... In general, an assessment of the situation will be made'.* Finally, P4 noted, *'We will definitely search for financial fundraising for repairing school damages'.* Regarding **psychological support decisions** (second theme: 2 codes), the principals referred to the utilisation of specialists (e.g. psychologists and social workers) (90%) and psychological support from themselves and the teaching staff (50%). P4 stated, *'We will definitely call a psychologist and those responsible for crisis management briefing. Also, the teachers with their students and I, of course, will perform some actions for the injured student, such as gifts, drawings, and letters from the student's classmates to support them psychologically. We will also talk with the relatives of the deceased teacher and the injured student to provide psychological support'.* According to P5, *'My colleagues and I are in telephone contact with the family of the victim and the injured person. Surely a specialist will come to*

talk to the children to heal the wounds in their soul'. Finally, P9 noted, *'I will request from Department of Primary Education psychologists, although all schools now have one'* (Table 4).

These findings reflect the recovery phase of the PREPaRE model, during which school principals examine the effectiveness of crisis prevention and intervention (E) through documenting actions taken; reflecting on the crisis; evaluating psychological traumas, crisis exposure, and emotional risk factors, and attempting to make more informed crisis intervention treatment decisions for a safer future (Brock et al., 2015; NASP, 2020).

4.4. Principals' Personality Traits in Crisis Management

Regarding the thematic axis of 'personality traits in crisis management decision-making', two themes and 11 codes emerged (Table 5). Specifically, principals mentioned personal traits and characteristics that they believed contributed to their overall crisis management decision-making, which could be categorised as personal skills (first theme: 8 codes), such as calmness (100%), preparedness (100%), organisational skills (90%), commitment to goals (30%), decisiveness (20%), prior education and training (10%), responsibility (10%), and insight (10%). They also mentioned social skills (second theme: 3 codes), such as collaboration (100%), empathy (20%), and communication (20%). Specifically, P5 mentioned that, during a crisis, they are characterised by *'Empathy, calmness, responsibility, organisational skills, insight, appropriate preparation (action plan, pharmacy), and cooperation'.* P6 identified the following traits: *'Calmness, organisational skills, empathy, appropriate preparation, efficiency, commitment to goals, timely information, and cooperation with authorities and parents'.* Finally, P8 stated, *'I think my organisational skills and cooperation with colleagues, preparation, commitment to goals, communication with authorities, calmness'.*

4.5. Influencing Factors in Crisis Management

Regarding the thematic axis of 'influencing factors', two themes and six codes emerged (Table 6). In terms of what contributed positively to crisis management, principals mentioned **facilitating factors** (first theme: 2 codes), such as effective cooperation and communication (100%) and appropriate preparation of schools, students, and teachers (50%). P3 noted *'Proper preparation, the action plan, and cooperation of teachers'*, P4 identified *'Good preparation and the cooperation of colleagues'*, and P10 stated *'The cooperation of all teachers'.* **Inhibiting factors** (second theme: 4 codes) that negatively contribute to crisis management focused on shock (30%), inexperience (30%), panic (20%), and parents (10%). Specifically, P3 mentioned *'Maybe the shock of such an incident',* P7 noted *'Inexperience in dealing with serious injury and death',* and P5 stated *'Maybe ineffective communication with parents'.*

5. Discussion

This study used a hypothetical scenario to understand and interpret the crisis management preparedness of leadership in school settings. To clarify school principals' crisis management preparedness, we used the PREPaRE theoretical framework comprising three phases of the crisis management lifecycle: prevention, response, and recovery. The leadership personality traits employed during crisis management decisions and their influencing factors were also examined.

The findings show that when leading a school that showed signs of deterioration and structural problems, school principals would take **preventive actions** to reduce long-term risks that threaten human lives or property. However, principals appear to develop crisis action plans based on the guidelines established by the Ministry of Education for all schools nationwide and receive uniform instructions, funds, and permission for school repairs from senior education executives without the ability to operate autonomously (Saitis & Saitis, 2012) or cope with their schools' individual needs and requirements.

During the **response phase**, principals appeared to serve as coaches for their school by assigning responsibilities to staff and supporting students, teachers, and parents via meaningful and empathetic communication and interactions while simultaneously attempting to address their socioemotional, physical and mental health needs. When coping with a teacher's death, most principals would initially inform the relatives and superiors/supervisors while attempting to avoid publicising the human loss through the media. Therefore, they appear to invest in interpersonal relationships and collective trust between themselves and staff members to achieve organisational stability and accomplish crucial goals during a crisis. Communication channels, cooperation, and trust among both principals and stakeholders of the school community and parents tend to be present during the crisis, which LaRoe and Corrales (2019) found positively affects reactions after and during crises. By contrast, the principals did not show a willingness to trust and collaborate with the media. Therefore, they did not focus on the requirement to inform and reassure society about such incidents or have protocols regarding collaboration between schools and the media. However, this could likely help dispel rumours and misinformation and disrupt trust among various stakeholders (Schechter et al., 2022).

Regarding the **recovery phase**, the principals' decisions for the next day mainly focus on closing the school and providing psychological support from specialists (psychologists and social workers) or teaching staff. These findings align with those of Fotou (2017), who reported that almost 50% of school units can offer psychological support in the event of a crisis. Evidence suggests that with such assistance and time provided, people may emerge from the experience with a stronger sense of appreciation and self-worth, while educational institutions may gain new insights and strengths (Gibson, 1991). Moreover, the principals mention action plan assessment and reflection on their actions. Thus, they appear to perceive this phase as a source of new knowledge based on which schools can plan for future incidents, revise their crisis management practices, and cultivate problem-solving skills, thereby ensuring a safer future. These findings could be perceived as the positive perspective/impact of a crisis serving as a trigger for improvements to existing protocols and greater cohesion, cooperation, and communication among organisational members (Karasavidou & Alexopoulos, 2019). According to Coquyt (2021) and Banerjee-Batist et al. (2022), principals can improve their critical thinking, problem-solving, and decision-making skills, adaptability, communication channels, and interaction techniques during the recovery stage.

In general, our findings indicate that although Greek schools have protocols created by the Ministry of Education to cope with crises such as earthquakes, they lack prevention, response, and recovery management plans, suggesting a moderate level of crisis preparedness. Moreover, school principals appear to make crisis-management decisions during all phases that mainly adhere to rules and regulations without taking the initiative or risks. The Greek educational system's centralised nature appears to play a significant role in school crisis management, as principals receive uniform instructions from senior education executives and are called upon to make specific rational decisions without the ability to operate autonomously (Saitis & Saitis, 2012). These conditions impede the formation of a culture of alertness and preparedness among staff and students, which should be based on crisis management plans tailored to a particular environment and relevant training (Brock et al., 2005; Kano et al., 2007; Shaw & Goda, 2004). This has consequences for handling problems resulting from bureaucratic structures, procedures, and culture, all of which render it challenging for schools to manage unusual and problematic situations (Chatzipanagiotou & Katsarou, 2023). Spyropoulou et al. (2021) highlighted concerns among Greek school leaders regarding a lack of financial and administrative autonomy in their schools, which they perceive as a major obstacle in school crisis management. Other studies have indicated that Greek school principals and teachers are poorly trained and informed about the actions to be taken during such crises and lack clear or updated contingency plans, preparation measures, long-term planning, and preparedness for material infrastructure and human resources (Karasavidou & Alexopoulos, 2019; Saitis, 2008). Furthermore, according to Karasavidou and Alexopoulos (2019), Greek schools are not safe sites because of the

feeble support provided by the Ministry of Education and local authorities, leading teachers to feel inadequate and not appropriately prepared. Meanwhile, our study's results indicate that principals prioritise psychological assistance, meaning that they not only act as professionals who formally manage the school unit and problems that arise but also care about the mental health of students and teachers and are ready to assist them, even at the risk of their own lives (Brock et al., 2016; Ertem, 2024; Schechter et al., 2022; Sokol et al., 2021). This indicates that during a school crisis, principals are distinguished by their compassion for students, parents, and educators. Other studies also found that empathy is an essential trait for leadership in crisis management (Ahtiainen et al., 2024; Argyropoulou et al., 2021; Striepe & Cunningham, 2022; Thornton, 2021).

Regarding **principals' personality traits** during a crisis, our findings indicate that they have social traits that affect others, such as empathy and communication and collaboration skills. Moreover, they have personal traits that enable them to maintain control and remain calm, make effective and rational decisions, and manage their schools, such as calmness, preparedness, organisational skills, goal orientation, decisiveness, and prior experience. These findings highlight several challenges in comparing regular decision-making to that under pressure, wherein managers should prioritise safety and make quick decisions based on all available evidence. Crisis decision-making requires several approaches and personality traits (Murawski, 2011). However, the principals did not refer to personality traits such as risk-taking, promoting innovative strategies, flexibility, and adaptability. These findings indicate that they mostly focus on acting safely during crisis management, following rules and regulations without taking initiatives or risks. Crisis management challenges demand innovative strategies, actions, and solutions, technological tools (Bogdanova, 2020; Ebersberger & Kuckertz, 2021; Orlikowski & Scott, 2021; Salamzadeh et al., 2023; Schechter et al., 2022), preventive and risk-taking capabilities (Salamzadeh et al., 2023), and creativity which contributes to the use of the span of time and networks (Rogers, 2003). However, all these can be fruitful in a flexible and autonomous organisational environment (Lakovic, 2021). By contrast, school principals in a centralised school system face barriers to taking the initiative or risks and being adaptive, creative, and innovative (Balasi et al., 2023). Leadership training and professional development programs could educate school leaders on these skills and how they could creatively and innovatively use tools and practices in a bureaucratic organisational context.

Moreover, our results indicate that principals' crisis management abilities are influenced by **facilitating and inhibiting factors**, including psychological, cognitive, affective, social, and physical aspects, suggesting that leadership preparedness in crisis management should integrate multiple interconnected strategies (Brock, 2000).

5.1. Implications

This study's results show that Greek schools are only partially prepared to deal with emergencies, predominantly because of the absence of a state-established coordinated crisis management framework regarding all three crisis management phases, low school autonomy, and a lack of training and expertise, supporting structures, and culture of alertness and preparedness. At the national level, the Ministry of Education and policymakers can help schools in several ways, such as by setting up specific protocols/guidelines and action plans for managing various types of crises, including crisis preparedness and response practices, guidelines for continuing learning on addressing crises, and strategies for meeting the needs of students, teachers, and parents (Tyler, 2025). Providing schools and principals with more autonomy is also essential for decision-making according to localised needs, specific contexts, internal policy, and culture, thus balancing national standardisation with contextual flexibility. Policymakers could also establish special crisis management committees or teams at school districts that have the expertise to review school action plans, provide training, allocate resources at schools, evaluate an emergency, and offer psychological and physical assistance.

Furthermore, training for teachers and school administrators could be established as a professional obligation based on a national professional training program conducted inside schools. Policymakers should also guarantee that schools have the required infrastructure, tools, funds, technology, and resources to cope with crises at all stages (Saitis, 2008).

At the institutional level, schools and principals could develop crisis management protocols and procedures according to their particular characteristics and requirements (Brock et al., 2005; Kano et al., 2007), revise and assess their action strategies, and establish communication channels with the relevant authorities and local community (Gainey, 2010). Building teamwork among all stakeholders and members of the educational community is a critical component that positively affects reactions both during and after a crisis (LaRoe & Corrales, 2019). As educational leaders show collective/social characteristics (communication skills and teamwork), the relationship between crisis management and shared decision-making has implications for teacher participation in crisis decision-making. Distributed leadership and shared decision-making are beneficial for crisis management (Striepe & Cunningham, 2022) and offer the capability to utilise various members' expertise, ideas, and relevant skills. Practical steps include establishing crisis management teams in their schools to develop functional and practical programs; update them often based on experience, feedback, and research; and control the impact of crises (Schechter et al., 2022). Preparing a media management protocol is also essential. Moreover, school principals could conduct staff meetings during which simulations of various scenarios could be conducted, thus allowing them to express their ideas, fears, and proposals without possible consequences (Harris & Jones, 2020; Schechter et al., 2022). They can also invite security experts to check security structures and measures, scientific experts to inform the school community, psychological staff to hold discussions with school members, and community partners to participate in school projects on coping with crises. School principals can reflect on the crisis with teachers, students, and stakeholders at scheduled meetings to express their concerns, fears, and proposals for future crises, reveal areas that need improvement or changes, and identify priorities and innovative solutions. Together, these measures could help develop a school culture of alertness, readiness, and trust among students, employees, and other stakeholders.

At the professional development level, professional development advocates and policymakers can establish guidelines and practical steps and offer crisis management (in-service and/or pre-service) training for educators. School leaders can receive ongoing training in crisis management mechanisms at all phases, including information on crisis management practices, tools and technology and how they can incorporate them in their crisis management strategies (e.g. artificial intelligence, big data systems, and informative and communicative platforms), psychological preparation and assistance of school members, and creation of communicative channels with authorities and stakeholders (MacNeil & Topping, 2007; Schechter et al., 2022). Teachers could also be trained to work as a unified team during disasters and in providing first aid and psychological support. Consequently, educators could help safeguard school members and create a sense of security for the community, develop a better understanding of the complexities of a crisis, identify organisational and personal strengths and weaknesses, cultivate skills and abilities, and learn from simulation experiences by assessing personal and institutional results (Hill-Berry et al., 2025). Principals could also plan in-school seminars and interactive sessions for students, parents, educators, and members of specialised agencies and local organisations (e.g. fire departments, healthcare facilities, volunteers, and civil security) that emphasise crisis management and the value of communication and teamwork during school emergencies. In this vein, all stakeholders could participate in school drills. Multidisciplinary teams could positively contribute to improving the ability to cope with and respond to the diverse safety and psychological needs of a school community (NASP, 2020; Sokol et al., 2021) through their various ideas, opinions, objectives, and expertise (Kotiadis & Tako, 2021), ultimately enhancing schools' learning abilities at the organisational level (Schechter et al., 2022). These stakeholders and services

could also provide equipment and resources to schools to prepare for or cope with crises (Howat et al., 2012).

Further quantitative studies could examine how different factors affect leadership crisis management, while further qualitative research could reveal the psychological components of decisions, behaviours, feelings, and tactics. Moreover, as this study provides insights based on a hypothetical scenario of a crisis management plan, future studies could determine the link between a practical management plan and preventative crisis management. Scholars could develop an innovative theoretical framework for school leadership crisis management that includes the leadership characteristics used in crisis management demonstrated in this study to establish a new school leadership management style, such as being a calm, adequately prepared, goal-oriented, and decisive school leader with a sense of empathy and cooperative and communicative abilities. Therefore, further research could contribute to developing a more universal definition and view of school leadership in crisis management. Consequently, although conducted in a small country, our study has implications for educational policymakers and school principals worldwide to assist in the creation of a school leadership crisis management framework in distinct educational contexts.

5.2. Conclusion

This study provides important insights into crisis management preparedness among Greek primary school principals, revealing both strengths and significant limitations in the current centralised approach to educational crisis management. The findings demonstrate that while principals exhibit important leadership traits such as calmness, preparedness, and collaborative skills, their ability to effectively manage crises is constrained by bureaucratic structures that prioritise uniform compliance over contextual flexibility and autonomous decision-making. This tension between standardisation and adaptation represents a critical challenge for educational systems seeking to balance consistency with effectiveness in crisis response.

The key contributions of this research include empirical evidence that centralised educational systems may inadvertently limit crisis management effectiveness by constraining principal autonomy and innovation. The study reveals that Greek principals, while well-intentioned and possessing important personal qualities for crisis leadership, operate within a system that emphasises adherence to predetermined protocols rather than adaptive leadership responses tailored to specific contextual demands. This finding has important implications for understanding how governance structures affect crisis preparedness in educational settings and challenges assumptions about the effectiveness of standardised approaches to crisis management.

The theoretical contribution extends crisis management literature by demonstrating how organisational context—specifically, centralised versus decentralised governance—shapes leadership responses during crises in ways that existing frameworks may not fully capture. The study's use of the PREPaRE model in a centralised system context provides new insights into how theoretical frameworks may require adaptation for different organisational environments, particularly those where individual autonomy is limited by institutional constraints.

From a practical standpoint, the implications suggest that effective crisis management requires carefully balancing standardised protocols with contextual flexibility. While uniform guidelines provide important safety baselines and ensure minimum standards across institutions, schools also need sufficient autonomy to develop context-specific plans, conduct regular training adapted to their unique circumstances, and make rapid decisions during actual crises that may not fit predetermined scenarios. Policymakers should consider how to maintain necessary safety standards while providing principals with sufficient autonomy to respond effectively to unique situational demands.

Important limitations must be acknowledged, including the small sample size that limits generalizability, reliance on hypothetical rather than real crisis scenarios that may not capture the full complexity of actual emergency situations, and focus on a single national context that may not apply

to other educational systems. The scenario-based methodology, while providing controlled conditions for comparison, may not fully capture the complexity, emotional intensity, and resource constraints of real crisis situations. Additionally, the study's focus on earthquake scenarios may not generalise to other types of crises that schools face, such as violence, health emergencies, or technological failures.

Future research should examine crisis management preparedness across different educational governance systems to better understand how centralisation affects leadership effectiveness in various contexts. Longitudinal studies tracking schools through actual crises would provide valuable insights into the relationship between preparedness and real-world performance, while comparative studies could illuminate how different governance structures enable or constrain effective crisis response. Research should also explore optimal models for balancing standardisation with flexibility in educational crisis management systems, potentially identifying best practices that maintain safety standards while enabling contextual adaptation. As this study focused only on school principals' views, incorporating the perspectives of teachers and students is also recommended for future research. Furthermore, this study demonstrated the importance of some principals' personality traits in school crisis management based on their ethical characteristics. However, future studies could interpret or examine the relevance of 'dark' leadership personality traits in crisis management and prevention.

This study contributes to our understanding of educational crisis management by highlighting the critical role of governance structures in shaping leadership effectiveness and revealing important tensions between centralised control and adaptive leadership. The findings suggest that preparing schools for crises requires attention not only to individual leadership capabilities and standardised protocols but also to the organisational and systemic factors that enable or constrain effective responses during actual emergency situations.

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Appendix

Card 1 (Prevention: Period before the crisis): You are the principal of a primary school in the city. The school was built several decades ago and is showing some signs of deterioration. The classrooms are narrow, and the stairs between the first and second levels of the school are steep and slippery. The size of the courtyard is satisfactory. The number of students is high (approximately 250). The Parents and Guardians Association wrote a letter to the mayor of the city strongly protesting the school's building problems and expressing fears for the children's safety.
1. What decisions have you made regarding damage to buildings, classrooms, stairs, and courtyards?
2. What actions have you taken thus far regarding these issues (e.g. external factors)?

Card 2 (Response phase: Period during the crisis): The second two-hour class period has begun. All students are in their classrooms. You are in your office, processing the daily correspondence. Suddenly, you hear a loud rumble, followed by a strong earthquake.
3. What are your first actions when you step out of your office and see a fallen bookcase in the hallway, broken windows, and plaster that has fallen from the walls and ceiling?
4. What decisions do you make and how do you utilise the resources and human resources you have at your disposal?

Card 3: Five minutes after the earthquake, the school has been evacuated, and the students, accompanied by their teachers, have gathered in the courtyard. Suddenly, a teacher, slightly injured by falling plaster, informs you in a panic that one of her students is trapped in a second-level/floor classroom. You also notice that one teacher is absent and his students are confused.
5. What decisions do you make when managing the new data?
6. What priorities do you set at this point?

Card 4: Five minutes later, a fire department vehicle and ambulances have arrived at the school. The firefighters and rescuers freed the missing student, who is seriously injured, and found the teacher, who was crushed by a ceiling beam, dead. Several children and teachers were slightly injured when attempting to go down the stairs and avoid falling objects. They are given first aid. Parents arrive and look for their children. The students are in the courtyard with the rest of the teachers.
7. How do you manage panicked parents looking for their children?
8. How do you deal with the injured people?
9. How do you deal with the tragic incident of the teacher's death?

Card 5: Ten minutes later, the news is spreading quickly around the city. The local authorities, the police, and the Director of Education arrive at the school. Several local media outlets also arrive, with journalists attempting to interview eyewitnesses.
10. How do you manage the arrival of your superiors?
11. What decisions do you make regarding the presence of the media and journalists' insistence on collecting information?

Card 6 (Recovery: The post-crisis period): 55 minutes later, the school has been completely evacuated, and all students are safe in their homes, except for those injured and taken to the hospital along with the dead teacher. In collaboration with engineers and technical services, municipal teams are recording the material damage. The tragic toll is one dead teacher and one seriously injured student. You call for an emergency meeting of the Teachers' Association.
12. What decisions will you make regarding the next day at your school? What are your priorities?
13. What psychological support will you provide for the relatives of the victim and the injured, as well as for all the staff, students, and parents after such a traumatic experience?
14. What characteristics of you as a manager do you believe contributed to your decision-making in crisis management overall?
15. Are there any factors that contributed positively to crisis management?
16. Are there any factors that hindered crisis management?

Table 1. Demographic Data of the Sample

		P1	P2	P3	P4	P5	P6	P7	P8	P9	P10
Sex	Male		x	X				X	x		x
	Female	X			X	X	X			x	
Age (years)	≤ 35							x			x
	46–50	X				X				x	
	51-55			X	x						
	55+		X				X		x		
Total professional experience (years)	11–20	X						X		x	x
	21–30					X					
	31+		X	X	X		X		x		
Leadership professional experience	1–2 years	X	x			X		X	x	X	x
	6+years			X	X		X				
Academic qualifications	Master's degree	X				X	X	X		x	x
School location (area)	Urban	X	X	X	X			X		x	x
	Rural					X	X		X		
School size based on teachers' number	13–18					X	X	X	X		x
	19+	X	x	X	X					x	
Interview duration (minutes)		19	26	18	26	32	38	18	33	19	18
Pages of transcription		6	9	6	10	12	8	6	10	6	6

Table 2. Prevention Phase

Thematic axis	Themes	Codes/frequency (%)
Prevention	Decisions on in-school actions (mitigation phase)	Repair damage to buildings, stairs, halls/classrooms, and courtyards (100%) Organise courtyards (100%) Organise the student population (30%) Increase on-call duties time (30%) Remove dangerous objects (20%)
	Decisions on preventive actions (planning/protection phase)	Send documents to relevant bodies (100%) Collaborate with Parents' Association and relevant bodies (100%) Create a crisis action plan (uniformly mandated by the Ministry of Education) (100%) Simulate exercises/training (100%) Personal involvement using school resources (50%) Search for financial resources or sponsorships (20%)

Table 3. Response Phase

Thematic axis	Themes	Codes/frequency (%)
Response	Decisions for initial crisis management actions	Implement a crisis action plan (uniformly mandated by the Ministry of Education) (100%) Identify the risk of the area/hazard identification (80%) Inform parents and relevant bodies/authorities (70%) Ensure the safety of students/teachers (60%)
	Decisions for the utilisation of human resources and means	Activate previous training for responsibilities/tasks (100%) Restore minor damages with the cooperation of teacher (60%) Coordinate human resources (60%) Utilise appropriate materials and means (40%)
	Decisions for trapped/missing student	Inform responsible bodies (ambulance, fire department; 100%) Provide psychological assistance (100%) Personal involvement in the search (70%) Search by responsible educators (50%) Inform the child's parents (20%)
	Deciding priorities	Student and teacher safety (100%) Psychological rehabilitation (100%) Building damage restoration (30%)
	Parent management decisions	Telephone information (100%) Provide psychological assistance (100%) Order maintenance and rules enforcement (100%)
	Injured management decisions	Provision of first aid by competent persons (100%) Provision of first aid by teachers (100%)
	Casualty (death) management decisions	Inform relatives (100%) Inform superiors/supervisors (80%) Non-publicization of human loss/non-disclosure of loss (80%) Organise actions (20%) Psychological support (10%) Search for witnesses (10%)
	Supervisor-related management decisions	Detailed information (100%) Request assistance (30%)
	Media management decisions	Entry ban (100%) Provide information (later; 70%)

Table 4. Recovery Phase

Thematic axis	Themes	Codes/frequency (%)
Recovery	Decisions for the next day	School closure (100%) Psychological assistance (80%) Building damage restoration (60%) Action plan assessment and reflection on actions (60%) Financial support (fundraising, gifts, donations) (20%) Distance learning application (10%)
	Psychological support decisions	Utilisation of specialist scientists (psychologists, social workers; 90%) Support from teaching staff and principals (50%)

Table 5. Principals' Personality Traits in Crisis Management

Thematic axis	Themes	Codes/frequency (%)
Personality traits in crisis management decision-making	Personality traits (individual level)	Calmness (100%) Preparedness (100%) Organisational skills (90%) Commitment to goals (30%) Decisiveness (20%) Previous education and training (10%) Responsibility (10%) Insight (10%)
	Personality traits (social level)	Collaborative skills (100%) Empathy (20%) Communication skills (20%)

Table 6. Influencing Factors in Crisis Management

Thematic axis	Themes	Codes/frequency (%)
Influencing factors	Facilitating factors	Effective cooperation and communication (100%) Preparation of school, students, and teachers (50%)
	Inhibiting factors	Shock (30%) Inexperience (30%) Panic (20%) Parents (10%)