


Crisis Management, School Leadership in Disruptive Times and the Recovery of Schools in the Post COVID-19 Era: A Systematic Literature Review

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Abstract: Contemporary school leadership has always been considered to be one of the most pivotal factors conducive to school effectiveness as well as a driver of change and strategic innovation involving the development of a strong vision, attendant goals and a relevant plan for implementation, monitoring and review. However, the disruption in the provision of educational services caused by the recent COVID-19 pandemic global outbreak revealed deficits in school leadership theory that were largely associated with the adoption of proper crisis management skills by the vast majority of schools' principals to readily adapt to a new reality and effectively confront upcoming challenges, at both instructional and organizational levels. Interestingly, although crisis management as a notion has been substantially elaborated on a theoretical level and successfully applied in different types of crises, it still has not gained a sustained focus within the field of educational leadership, as evidenced by the notable scarcity of related empirical research. This study addresses this gap in the research via a systematic review of scientific papers, published within the 2019–2022 timespan and compiled under the PRISMA framework, reporting on the challenges faced, the crisis management strategies employed and the personality traits that were most commonly associated with effective crisis leadership throughout the turbulent COVID-19 era.

Keywords: school leadership; crisis management; school principals; COVID-19; systematic review



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1. Introduction

The unpredictable global pandemic of COVID-19, emergent on 11 March 2020 upon official confirmation by the World Health Organization (WHO) [1], has been viewed as ‘an unprecedented test for organizations around the world’ [2] disrupting every aspect of regular everyday life, threatening social and economic cohesion, and interrupting the smooth provision of educational services at all levels. Despite the benefits of stringent social and physical restrictions imposed globally for the restraint of the virus’s spread, these restrictions have nevertheless proven to yield painful and profound consequences for educational institutions. The very fabric of education has been heavily challenged as education communities found themselves plunged into an emergency mode of operation in the midst of ‘undeniable chaos’ [3]. Globally, 1.6 billion young people in nearly 200 countries and over 200 million school personnel were out of school during the COVID-19 health crisis [4] since many schools had to stop operation, while instructional procedures had to be significantly re-organized in the remaining academic institutions [5] forcing 60 million educators to engage in online learning to establish some resemblance of schooling [6]. Evidently, the swift transition to remote instructional practices and modified school management operations challenged the pedagogic core of education, forcing teachers to adapt their teaching methods and pedagogy almost overnight [7] and students their learning methodology. This, in turn, led to a paradigm shift in traditional leadership roles as a result

of the reprioritization and adaptation of practices employed by school leaders in their effort to continue to lead and support their school communities effectively, even virtually and at a distance [8,9].

Besides being an integral component that drives change and innovation in schools [10], school leadership is also of crucial importance in times of crisis providing certainty, hope, guidance, efficiency of resources and ensuring open and trusted communication among the school community [11]. With education communities being plunged into an emergency mode of operation enforced by the constraints posed by the volatile and highly ambiguous context of the COVID-19 era, school leaders were called on to bear the onus of managing a particularly stressful situation, serving a diverse range of roles, implementing reforms and ever-changing policies within their organizations while also navigating structural constraints and limited resources [12]. In view of the unpredictable challenges set by the pandemic, school leaders were required ‘to provide leadership that is both sensitive and directed’ [13] (p. 3), as well as flexible and adaptable [14]. They were called on to use their trustworthy and credible voices for the benefit of their school community, to act swiftly and with foresight, making speedy critical decisions on complex issues with potentially life-saving implications for students and staff alike [15], to communicate with empathy and humanity [16], as well as to manage the anxiety, frustration and anger of others throughout the crisis [8].

However, although natural, human-induced and public health crises have severely impacted educational institutions throughout history, crisis leadership, as a theoretical and research concept, has not been extensively researched in education [17] with the amount of empirical studies devoted to the impact of the COVID-19 pandemic-induced school lockdown on school leadership practices still being substantially negligible compared with relevant research dedicated to instructional procedures [18,19]. In an effort to expand the current knowledge on school crisis leadership as exercised during the pandemic and to inculcate prospective school leaders with ‘the need for effective crisis leadership in education at every level of the system’ [20], we deemed it timely to conduct a systematic review of the topic. In this sense, this paper seeks to investigate school leaders’ lived experiences throughout the COVID-19 crisis via a systematic review of related empirical studies within the 2019–2022 timeframe. To achieve this objective, this study seeks answers to each of the following research questions:

- Research Question 1. What are the major challenges faced by educational leaders throughout the COVID-19 pandemic?
- Research Question 2. What kind of crisis leadership practices were employed by educational leaders to respond successfully to the pandemic in different stages of the COVID-19 crisis?
- Research Question 3. What are the key leadership style attributes exhibited by educational leaders throughout the COVID-19 era?

The paper is organized in six sections: Section 1 concerns the introduction to the study and captures the research questions. Section 2 offers the rationale adopted for our systematic review via a discussion of similar literature reviews already conducted on the topic of school crisis leadership in search of identifiable research gaps that need to be properly addressed. Section 3 provides the theoretical framework by analyzing key crisis management models and elaborating on their potentially effective application in the educational sector enabling school leaders to prepare, effectively respond to and manage unpredictable challenges throughout all stages of the COVID-19 period. Section 4 describes the research methodology followed in this study, including the literature identification search process, the selection criteria as well as the data collection and the analysis procedures used. The review results are discussed in Section 5 and are organized per research question to highlight the implications for prospective school leaders. Finally, Section 6 provides concluding remarks with respect to future research directions in the field of educational management and school crisis leadership.

2. Rationale for the Current Review

As crises constitute acute external forces with potentially high and often disruptive consequences for economies and organizations [21], as in the case of the COVID-19 pandemic, crisis leadership has recently resurfaced as the focal point in a series of systematic reviews that aimed to redefine it and provide useful insights into the determinants that condition successful leadership practice in times of crisis in different organizational contexts. In a recent systematic review, Ref. [22] proceeds to reconceptualize crisis leadership adopting an interdisciplinary approach via a synthesis of related theoretical and empirical research primarily conducted in the domains of economics, psychology and business administration based on bibliometric techniques highlighting directions for future research in the field. In Harmey and Moss's [23] study, crisis leadership is systematically studied within the realm of education using empirical evidence on educational leadership during times of crises as a basis for a narrative synthesis of recommendations in relation to learning loss mitigation strategies that could effectively be adopted in the post-COVID 19 era in policy and practice.

In a similar scoping review conducted by [24] within the context of K-12 schools, crisis leadership is redefined based on available school crisis empirical evidence of the 2010–2020 period via the identification of key characteristics that determine the extent to which school leadership has been successfully enacted in different types of crises in diverse educational contexts and crisis phases, including preparedness, response and recovery from a crisis. Interestingly, the study is restricted to a discussion of natural disaster consequences on education (earthquakes and tsunamis in Japan, hurricanes and tornadoes in the USA) with no reference to health-related crises and, more particularly to the COVID-19 pandemic. Possibly this is due to the paucity of related scholarly work produced on the topic until 2020. Finally, K-12 school leadership in times of crisis has also been the subject of investigation in Parveen et al.'s [25] most recent and more narrowly focused review, intended to explore the key administrative challenges encountered by principals during the COVID-19 pandemic. These are related to self-care, wellbeing and safe school opening; learning continuity and quality of education; ensuring distributive leadership; emotional and mental health; equity gaps; digital divides; and the cyber security of online education.

Given the extant reviews, this study can be viewed as a useful and timely contribution to the limited research dedicated to the evolution and transformation of school leadership during the COVID-19 period offering insights into the school principals' lived experiences and specific strategies adopted to respond effectively to the unanticipated challenges of the pandemic-instigated school disruption. The study also seeks to provide a typology of key traits most commonly associated with the practice of effective school leadership as a guide for current and prospective leaders when performing their roles in similar crisis circumstances. In this sense, the review will raise school leaders' awareness of the significance of effective leadership in times of crisis, advance their current knowledge of proper practices and potential mitigation strategies that can be adopted to design and implement an integrated organizational response from preparedness till the stage of recovery and provide a basis for the restructuring of school leadership training programs as well as identify additional areas for research.

3. Crisis Leadership in Education

The core of crisis management literature is replete with multiple related definitions that aim to provide an adequately explanatory delimitation of crisis as a prerequisite for the development of appropriate and effective crisis prevention and response strategies when they occur [26]. In one of the earliest definitions offered in the field by [27], crisis is viewed as 'a low probability/high consequence event that threatens the most fundamental goals of an organization'. According to Pearson and Clair [28] it 'is characterized by ambiguity of cause, effect and means of resolution as well as by a belief that decisions must be made quickly' as a mishandled crisis poses the significant threat of negatively impacting an organization [29]. Following Boin [30], threat, uncertainty and urgency are inherent features of a crisis situation occurring in any organization followed by the perceived impact

of the stakeholders and little to no warning [31]. Most recently, the ‘transboundary’ nature of the COVID-19 pandemic has enriched these definitions to highlight the severity of the ongoing crisis describing it as a situation that reaches across multiple domains with multiple manifestations; has a slow incubation but a rapid escalation; has causes that are hard to chart; challenges multiple actors who share conflicting responsibilities; and has no ready-made solutions [32].

Within the context of education, crises have broadly been defined as ‘intrusive and painful experiences’ [33] that cause ‘unexpected, fundamental disruptions to school functioning with potentially high consequences for the organization, its stakeholders, and its reputation’ [34] (p. 315) that are typically organized in five distinct types [11] (pp. 59–60), i.e., crises include short-term crises, cathartic crises, long-term crises, one-off crises and infectious crises. This definition is also adopted in this study as a reference point guiding the discussion of school leadership practices within COVID-19 era. Handling these types of crises necessitates the acquisition of crisis management skills on the part of educational leaders that would allow them to accurately assess the complexity of the situation, engage with effective decision-making, establish communicative lines with all interested stakeholders, employ recovery strategies upon termination of the crisis and adopt self-reflection on the valuable lessons learned during crisis as a guide for the resolution of future crises [35]. While, according to Mayer et al. [36], most organizations, including schools, tend to adopt a linear crisis management framework undergoing three distinct phases in response, i.e., prevent, respond and recover [37], Ref. [38] suggests as more appropriate for use in educational settings a cyclical approach to crisis management that stresses professional development and reflection following the onset of a crisis, as well as open two-way communication for decision making that minimizes misinformation. Implementation of such an approach is usually divided into five stages, involving detection, preparation, resolution, recovery and learning (e.g., [39,40]).

The crisis management life cycle is, in fact, eloquently illustrated in one of the very first models of its kind, developed by Fink [41] in 1986 where crisis is treated as an extended event with sufficient warning signs that precede the event, consisting of four stages, namely, the prodromal, the acute, the chronic and the resolution stage. In the prodromal stage, crisis managers attempt to identify an impending crisis, taking on a proactive, rather than a reactive role, with all actions taken at this stage being similar to those employed in the pre-crisis stage of Coombs’s [42] three-stage model to address an organization’s crisis prevention. The actual crisis event begins with a trigger, during what is called the acute stage, that is characterized by the crisis event itself and the resulting damage. The severity of the crisis and damage are both influenced by successful proactive crisis identification at the prodromal stage, potentially leading to the mitigation of crisis impact at the acute stage. The chronic stage of the model refers to the lasting effects of the crisis, which, despite the unforeseen occurrence of crises, can extend its lifecycle. In Coombs’s terms, both the acute and chronic stages of Fink’s model act as sub-stages of the crisis stage in his model that include the appearance of a crisis event and the steps taken to resolve it. Finally, Fink’s [41] resolution stage, similarly to Coombs’ [42] post-crisis stage, ensures the crisis has ended and distributed this message to the public.

Mitroff’s [43] cyclical model of crisis management consists of five stages, drawing obvious parallels to Fink’s [41] crisis lifecycle and Coombs’s [42] crisis management models, elaborated above. The first two stages of the model, i.e., signal detection and probing and prevention, describe the proactive steps adopted by an organization before a crisis event with the signal detection stage being much the same as Fink’s [41] prodromal stage. Probing and prevention as a stage, featuring members of an organization who examine the risk factors of known crises and determine ways to prevent them, is not addressed in Fink’s model. Nevertheless, similarly to Fink’s prodromal stage, signal detection, probing and prevention also exemplify the characteristics of Coombs’ [42] pre-crisis stage. The last three stages of Mitroff’s [43] model, i.e., damage containment, recovery and learning, can be considered as slight variants of Fink’s [41] acute, chronic and resolution stages,

as they also discuss the trigger and containment of the crisis event, the arduous task of returning to the pre-crisis norm as well as the resolution of the crisis event. However, the two models differ substantially in two respects. First, with respect to the recovery stage, Mitroff [43] emphasizes the facilitation of organizational recovery suggesting strategies to empower crisis managers to cope with a crisis event, in contrast to Fink [41] who stipulates that organizations at the chronic stage recover at varying rates, and focuses only on the timeframe of the recovery. Mitroff's [43] damage containment and recovery stage can be considered as equivalent to the crisis stage of Coombs' [42] three-stage model. Second, with respect to the learning stage, while Mitroff's [43] model allows an organization to incorporate what it has learned from the crisis into its organizational philosophy, Fink's [41] model simply states that resolution occurs when the crisis is no longer a concern without any mention of future applications. In line with Coombs' [42] model, Mitroff's [43] model recognizes the learning stage as an integral part of the crisis management procedure, acknowledging that failure on the part of an organization to learn from a crisis can render it susceptible to the crisis again.

Building on this body of literature and on research conducted by [44], Ref. [34] propose an adapted framework for school leadership crises that highlights the key competencies and skills required by educational leaders to effectively prepare and respond to future crises, and can serve as a basis for leadership preparation programs to support the ongoing professional development of school leaders. Grissom's and Condon's [34] framework describes the crisis management cycle concisely in five phases: (i) mitigation/prevention, (ii) preparedness, (iii) response, (iv) recovery and (v) learning. Crisis management in educational contexts is depicted as a process that includes the three stages of (a) pre-crisis involving mitigation, prevention and preparedness strategies, (b) in-crisis and (c) post-crisis existing in a continuum with gradual transitions occurring among them, aside from the triggering event that clearly demarcates the beginning of a crisis response. Effective crisis management response in each of these phases necessitates a differentiated level of readiness and professionalism on the part of school leaders by skillfully resorting to the appropriate leadership practices required throughout all stages of the crisis event. The comprehensive description of school crisis provided in this model prompts us to adopt it as it serves the purposes of this review.

Based on the researchers' analysis [34], the mitigation and prevention phase include all sustained activities that pertain to the prediction and minimization of the likelihood for the occurrence of a crisis, eliminating long-term risk to life and property and decreasing the need for response [45]. During this time, leaders are advised to conduct or manage safety assessments to identify potential hazards or threats (Mitroff's [43] 'signal detection' phase) and then pursue the necessary action to reduce the likelihood of threats' re-occurrence [46]. Crisis preparedness reflects the need for organizations to establish crisis management plans that can ensure that an educational institution is ready to respond solidly in cases of crises that cannot be averted [47]. Such plans draw from assessments of risks and vulnerabilities identified during the mitigation phase, and include logistics and training procedures for crisis response as well as assigning roles and tasks to key personnel to increase the capacity of schools' response and recovery in case of potential crises [48]. Plans must be readily accessible to the school/district community [49] as preparedness requires establishing or refining systems of communication for crisis response that can engage all stakeholders with clarity and transparency, as a key factor to a 'readiness mentality' for an effective crisis response [50]. Crisis response entails quick, decisive actions based on the assessment of the situation and the selection of the most effective solutions available to implement [51] in order to reduce confusion and effectively manage members of the school/district community [52]. Communicating the crisis, its consequences, and the school's response transparently—internally and externally—builds trust and promotes productive engagement with the response from the community [53]. Like the crisis response, effective recovery requires a recovery plan with critical activities for leaders to engage in, and metrics for evaluating the recovery [54]. Recovery involves a return to a routine for the

school organization and its community members [55] that is accompanied by continued recognition and support for the ongoing ‘post-crisis’ needs of the community [56] via multi-tiered interventions aimed at minimizing the traumatic crisis impact and restoring the school, both physically and psychologically, as a safe and secure learning environment. Intentional learning from the crisis and the organization’s crisis experience forms the last phase of an effective crisis management strategy involving a data assessment collected at each phase of the crisis and availing educational leaders of the opportunity to identify changes that need to be made to organizational systems and procedures with the goal of more effective future mitigation/prevention and preparedness [57].

Given that leadership forms an integral component in crisis management [58], educational leadership theorists have recently attempted to delineate effective school leadership in view of the COVID-19 pandemic in terms of leadership practices, competencies and skills as a guide to enable school leaders to navigate successfully through the uncharted territory of the crisis by mitigating the crisis threat for the school community at both personal and organizational level. Dependent on the contextual school and community circumstances that can determine the effective adoption of crisis leadership practices, nine key attributes were identified by Smith and Riley [11] to form the profile of a successful school crisis manager: communication skills, procedural intelligence, synthesizing skills, optimism/tenacity, flexibility, intuition, empathy/respect, creativity/lateral thinking and decisive decision making. Ref. [6] broadly categorized the required pandemic school leadership skills along three major clusters that can be deployed in order to (a) promote care, collaboration and resilience among school stakeholders by providing support for and genuine interest in the inner world of the students, staff and community, fostering collaborations among all school stakeholders and building resilience among students, teachers and principals; (b) manage organizational and information resources by preserving and utilizing the organization’s current capacities and known operating patterns to maintain stability and familiarity at times of stressful change while developing and creating new learning-working processes and effective information communication channels; and finally (c) develop agile and holistic management by promoting diverse and distributed and systemic thinking leadership and flexible bureaucracy.

Effective crisis leadership has often been associated with the deployment of specific leadership practices throughout the stages of the crisis, as reflected in relevant work by [59] who describes crisis management in terms of leaders’ ability to exhibit:

- (a) Sensemaking upon early recognition of an upcoming threat, resulting in an accurate interpretation of complex and threatening situations at the onset of a crisis. Effective sensemaking presupposes a well-rehearsed method on the leaders’ part to process information, share it with the right people and consider their feedback, to create a dynamic picture that everybody understands, analyze possible “futures” and potential consequences and formulate specific information needs [60].
- (b) Decision making including swift and critical decisions that have to be made by leaders based on high-quality information [61] to mitigate adverse effects, provide support and assist in the recovery of their school community.
- (c) Meaning making, relating to how leaders communicate to stakeholders their interpretation of a crisis as well as the plan they intend to follow to restore a state of normalcy, conveying ‘authentic hope and confidence’ [62].
- (d) Terminating referring to when a crisis situation returns to normality.
- (e) Learning, that occurs both during and after a crisis upon reflection of the lessons learnt signaling that organizations seek to correct dysfunctional processes, and are willing to adapt to new situations and adopt appropriate solutions [63]. Skills such as establishing vertical and horizontal coordination within the organization and across organizations both during and immediately after a crisis [64], coupling and decoupling critical events, pursuing and sustaining reciprocal and comprehensive communication channels to convey clear messages and avoid messages based on rumors or misleading or erroneous information [65] and assuming accountability

over what was done before and during the crisis and why, have all been emphasized by [66] and could form integral components of school leaders' responsiveness in times of crisis by increasing organizational resilience.

4. Methodology for the Review

This study offers an overview of the key findings of collected empirical studies adopting a systematic literature review approach as a means to obtain comprehensive insights into the specific research domain of school crisis leadership [67,68] gathering all available data that are in compliance with certain predefined requirements to address a particular research question [69] via systematic and precise methods that classify, select and critically analyse multiple research studies or documents [70]. Systematic research, as a scientific method, presents certain advantages over conventional literature reviews as it improves review consistency, replicability, reliability and validity [71] and may explain the authors' claims of rigor in their report, allowing gaps and directions to be defined for future studies.

For the purposes of this study, the review process was divided into three steps, as reported by [72]:

Step 1 Planning: (a) selection of journals, (b) definition of inclusion and exclusion criteria for studies and (c) definition of categories for the analysis.

Step 2 Conducting the review: (a) study selection, (b) data extraction (content analysis methods were applied), (c) data synthesis and (d) data coding.

Step 3 Reporting the review: analysis of the results and discussion of the findings, trends and conclusions regarding the 'Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA)' statement [73].

The PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) methodology [74] was utilized in order to describe adequately all eligibility criteria for study collection, information sources, remove duplicates, screen records, data collection process and finally to synthesize the results. In essence, this review serves as a useful and timely contribution to the extant literature on crisis management in education as it aims to systematize current empirical research evidence on crisis management strategies employed by school leaders in diverse educational contexts to face the emerging challenges in the disruptive times of COVID-19 era, to mitigate its impact and restore normalcy in their school, to identify and address research 'gaps', to offer new insights to researchers in the area as well as provide prospective school leaders and principals with suggestions related to crises management skills development via targeted teacher training interventions.

To further understand the adopted method choices, the following can be considered:

4.1. Search Strategy

All the well-known scientific databases that were selected for the search were compatible with the objectives of our systematic review as described in the initial research questions above including relevant research work published in English within the three-year period of 2019–2022 in the areas of educational leadership and school management with specific reference to school leadership practices throughout the COVID-19 period. The databases used in our study were *Scopus*, *ScienceDirect*, *Google Scholar* and *CrossRef* with all searches being made separately to each one of them. Branching searches were also performed using forward and backward search procedures from the reference lists of previous literature reviews (examples), and were primarily consulted at earlier stages of this review. The search terms (keywords) that were used for the purposes of this review to determine the scope and nature of school crisis leadership in educational contexts during the pandemic included such terms as the following: 'crisis management', 'educational leadership', 'COVID-19', 'primary education', 'secondary education'. Manual searches for empirical studies were also conducted in major international peer-reviewed and open access journals in the field of educational administration including *Educational Management Administration and Leadership Journal*, *Frontiers in Education*, *Educational Administration Quarterly*, *International Journal of*

Education Policy and Leadership, Journal of Educational Administration, Journal of Research on Leadership Education, School Leadership and Management.

4.2. Selection Criteria

In order to answer the proposed research questions, a set of evaluation criteria aimed at identifying relevant studies was defined and organized as inclusion, exclusion and quality criteria (Table 1 below).

The inclusion and exclusion criteria set for the selection of the reviewed studies were as follows:

Table 1. Inclusion and Exclusion Criteria of the Reviewed Studies.

Inclusion Criteria	Exclusion Criteria
<ul style="list-style-type: none"> Studies published between 2019 and the third quarter of 2022. Studies with an abstract and a full paper written in English. Studies that provided empirical evidence of crisis management strategies in an educational context based on a well-designed experimental research method. Studies that explicitly reported the challenges faced and management practices adopted by school principals to deal with the disruption of school routines caused by COVID-19 pandemic on the instructional and organizational level. Studies focusing on the description of school crisis leadership practices within primary and/or secondary general and special education. 	<ul style="list-style-type: none"> Articles published in sources different from journals and conference proceedings (e.g., books, reports, BA and MA theses). Articles not written in English. Articles with less than five pages in length. Secondary or tertiary articles such as reviews, meta-analyses or overviews. Studies that have not presented any evidence retrieved by any well-structured research method and evaluation process (e.g., preliminary studies, studies in progress). Studies that did not provide clear summarization or aggregative findings from their qualitative and/or quantitative data.

4.3. Study Quality Assessment

Once the inclusion and exclusion criteria were applied, an evaluation checklist to assess the quality of the selected articles from a methodological-design perspective was completed. To this extent, special emphasis was given to articles which have presented their results based on qualitative and/or quantitative data analysis, as such studies are considered to be the most common forms of empirical research [75].

To study effective school crisis leadership practices and provide a profile of the effective school leader in times of crisis as have been reported by the reviewed studies, the following criteria were taken into account:

- The instructional design and research methods adopted for the investigation of school crises leadership practices in primary and secondary general and special education.
- The purpose of the studies and their scientific contribution in the area of educational administration by addressing the notion of school crisis leadership based on empirical evidence.
- School principals' lived experiences throughout the COVID-19 era in terms of key challenges encountered and crisis management strategies employed to respond and mitigate the negative impact of the pandemic on school organization.
- Identification of key personality traits that can be associated with effective school crisis leadership as reflected in the adoption of response, mitigation and recovery strategies employed by school principals in different stages of the COVID-19 outbreak.

4.4. Data Collection and Data Analysis

The articles that met the inclusion criteria that were described above, were further categorized after considering previous similar systematic studies in the broader area of crisis leadership (e.g., [22]) aiming to map out the major conceptual themes in relevant extant literature. The inductive thematic analysis approach [76] was used to identify and

categorize the emerging and more relevant themes in the empirical studies in relation to the key challenges, crisis management strategies and personality traits associated with effective school leadership in the COVID-19 period. The unit of analysis was each individual empirical study and the coding scheme was not predetermined prior to our analysis but emerged inductively and was continually refined through our interaction with the data.

Figure 1 presents the literature searching and selection process, which was in accordance with PRISMA guidelines [73]. After deleting duplicates, reviewing abstracts and reading full-text papers, we identified 42 eligible studies for this review.

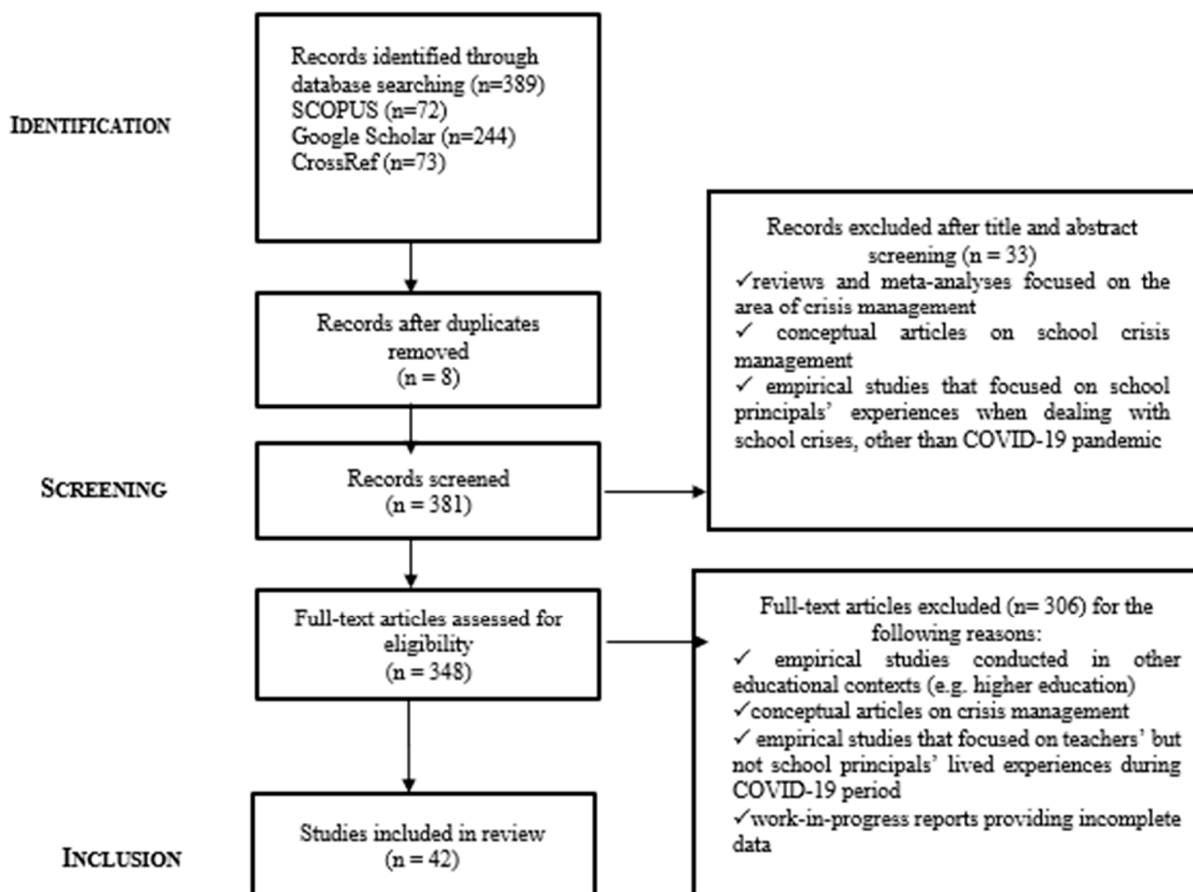


Figure 1. The Process of Literature Searching and Selection.

5. Results and Discussion

5.1. Profile of Included Empirical Studies

This section discusses the key findings of the 42 empirical studies on school crisis leadership collected for this review within the 2019–2022 time period to provide adequate answers to our initial research questions (Table 2 below). Following Figure 2 below, the vast majority of the studies selected for our review were based on our inclusion criteria, i.e., 34 papers (81%) were published in the form of articles in highly acclaimed international journals in the field of educational management and leadership while only eight of them (19%) constituted the theme of theses undertaken at a doctoral level. In relation to the geographical context within which the reviewed studies were conducted (Figure 3), 16 studies (38.1%) were situated within a North/South American educational setting, followed by 10 (23.8%) and eight studies (19%) recorded within a European and Asian school context, respectively. Africa, with one study (2.4%), and Oceania, with two studies (4.8%), are underrepresented in our sample while the remaining five studies (11.9%) focus on International Schools spread in different locations around the globe. Finally, with respect to the educational level considered in the studies (Figure 4), both primary and secondary

education was targeted in 15 studies (35.7%) followed by primary education and secondary education contexts only in 11 (26.2%) and 10 studies (23.8%), respectively. All empirical studies included in our sample follow a qualitative research design based predominantly on semi-structured interviews for data collection, and rely on inductive thematic analysis for the extraction of significant school-related crisis management and leadership topics reflecting school principals' lived experiences throughout COVID-19.

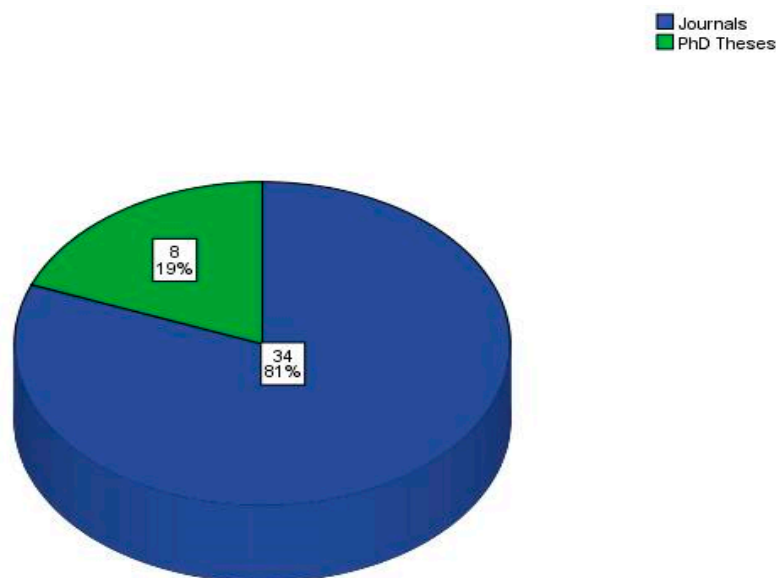


Figure 2. Publication Source of Empirical Studies.

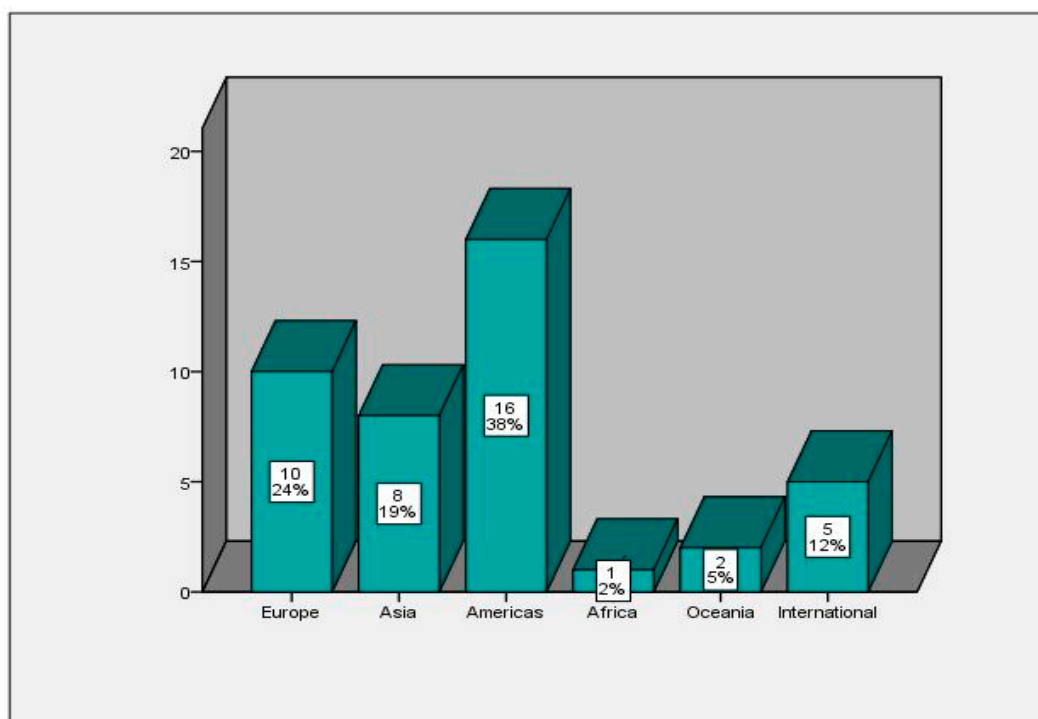


Figure 3. Distribution of Empirical Studies per Continent.

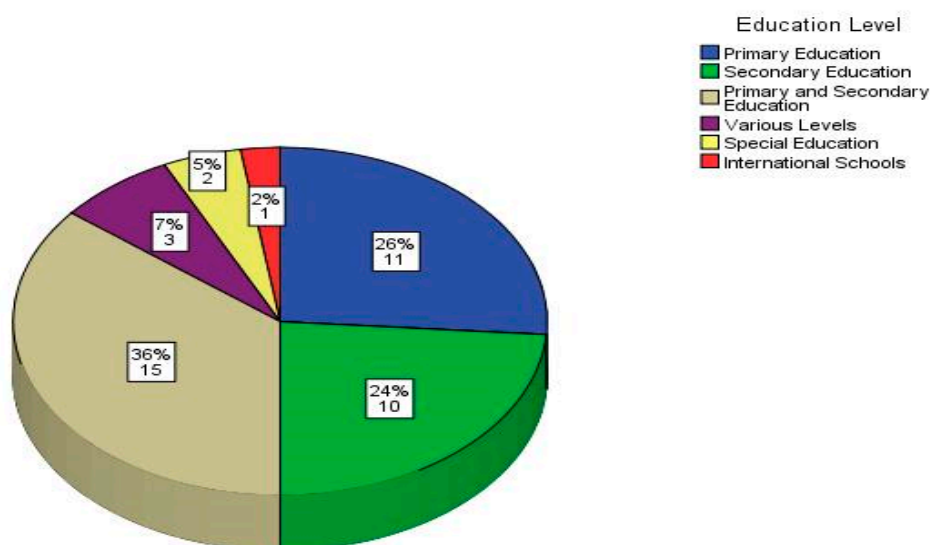


Figure 4. Education Level Addressed in Empirical Studies.

5.2. RQ1: Major Challenges for School Leaders in the COVID-19 Era

Evidence with respect to the major challenges encountered by school leaders during the COVID-19 era necessitating prioritization and an immediate response to continue to lead effectively and to ensure the uninterrupted provision of educational services is available in 21 (50%) out of the 42 studies included in this review. Identified challenges are classified here into three distinct categories: (a) logistical challenges posed by the lack of infrastructure, technical equipment, funding and efficient planning in schools to allow school leaders to determine the actual impact of the pandemic on daily school life by managing conflicting incoming information, and adopting an effective responsive strategy; (b) academic challenges associated with the difficulties experienced by school leaders in their effort to support staff members and learners alike in their transition to emergency remote online learning both in cognitive and emotional terms providing them guidance in online teaching practice and assistance in technical issues as well as boosting their morale throughout the process; and (c) organizational challenges related to obstacles encountered by school leaders in their effort to ensure a positive school climate by safeguarding the physical and psychological safety of all school members and engaging all stakeholders of the school community in the common effort.

5.2.1. Logistical Challenges

Lack of Infrastructure and Equipment

The swift transition to remote online learning mode imposed on school communities by COVID-19 strict regulations for social distancing and self-isolation revealed a series of deficiencies in terms of technical infrastructure and equipment that significantly impeded school leaders' efforts to effectively organize the uninterrupted provision of educational services for all students worldwide. A lack of technological tools to support students' learning, as reported by school principals in Adams et al.'s [77] and Neelakantan et al.'s [78] studies, intensified their struggle to find ways to ensure that teaching and learning continued remotely and at a satisfactory level, but with limited success, as only a few of these principals went the extra mile to motivate their teachers to improve online content creation, to use various communication platforms where practical and to coordinate with other teachers through teamwork. Similar findings emerged in two related studies conducted within the educational contexts of Turkey [79] and the USA [80], respectively, where school leaders in the former case elaborated on the technical difficulties they experienced in the following circumstances. Firstly, in the use and management of virtual online learning platforms for instructional and communication purposes. Secondly, in the quality of the

internet infrastructure of schools and highlighted difficulties associated with Wi-fi connectivity and a lack of bandwidth in households with multiple students. The critical role of technological infrastructure for the effective implementation of online learning practices throughout the pandemic period was also stressed in Varela and Fedynich [81], where technological resource unavailability accompanied by a lack of teacher training in online education and a preponderance of student inequities were deemed by 63% of USA school principals in their study as key factors that complicated the instructional experience during the COVID-19 period.

Lack of Funding

A factor found to constitute a major obstacle in effective school crisis leadership in various educational contexts globally throughout the COVID-19 pandemic is a lack of adequate funding. As illustrated in [80], insufficient funding resources were the primary reason that led K-12 school leaders to become more resourceful and to seek alternative means of financial aid to offer professional development for staff members in relation to online platform use and socio-emotional strategizing in the online learning process. School leaders' agony for essential adequate funding resources to be invested in smooth school operation procedures and the acquisition of necessary technology infrastructure is eloquently stressed by [82] as experienced by principals leading schools within the financially deprived context of the Philippines. The lack of administrative and financial autonomy of schools was equally cited as a serious obstacle by Greek school principals in the [83] study, obviating the adoption of a more effective crisis management approach, as this was evidenced in problems encountered with inappropriate classrooms, the incomplete maintenance of the school buildings, technological and material deficiencies or even a lack of auxiliary staff. Substantial financial challenges were also reported by school leaders in private schools in two studies primarily due to a reduction in revenues (e.g., school donations, student cafeteria, parking lot charges) [79] and fees' collection during COVID-19 [78]. This severely impacted school administrations' decisions for the further running of the school with respect to pay cuts and the laying off of staff leading to professional demotivation and a fall in general wellbeing.

Absence of a Crisis Plan in View of COVID-19 Pandemic

Ambiguity, contradiction, hyper-vigilance and crisis planning became day-to-day challenges in the early days of the pandemic requiring multi-tasking and a readiness on the principals' part to respond to and filter new incoming information, to adapt their leadership practices accordingly [80] and to respond to changing directives and orders supplied via central platforms to the media without any warning to schools [84]. As attested by school principals in [78] study, the situational ambiguity surrounding the pandemic period was overwhelming and challenging forcing principals to shift their traditional leadership styles to more directive ones as it demanded immediate action, planning, decision-making and foresight in several domains. An inability to manage uncertainties coupled with a pronounced lack of scenario planning in the case of health pandemics were similarly reported by school principals in Turkey, as documented by [85], forcing them in most cases to resort to short-term solutions to ensure a continuity in school operations within this uncertain environment. Such strategies usually involved the adoption of social media and communication apps (e.g., WhatsApp) to minimize the distribution of false information and confusion and to maximize support for their school community [77] and the enforcement of defined policies and procedures at a school level, as well as efforts to enhance cooperation with the local health agencies to stabilize school organizational culture [86].

In general, school leaders in the reviewed studies exhibited minimal levels of preparedness to confront the uncertainty associated with the lockdown period of the pandemic era, with the majority expressing feelings of uncertainty and hesitancy, fear and 'ill-preparedness' [87] due to the absence of a concrete crisis plan. They unanimously expressed frustration with vague guidance and a subsequent lack of planning as provided

by state agencies forcing them to plead for more robust guidelines and training opportunities to aid them in their decision-making over students' safety and additional human resources to alleviate the additional workload placed upon teachers [88]. The majority confessed having difficulty predicting the future, feeling entirely helpless and 'in need of clearer information and guidance from their supervisors in relation to the management of the situation' [83], but still persistent in their efforts to gain control of the situation and reinvigorate school personnel by sharing a vision to allow the school as an organization to maintain agency in coping with the crisis [89]. In view of the absence of a crisis plan and the entanglement of health with educational policy most prevalent at the initial stages of the COVID-19 crisis, school leaders were forced to take on a new form of policy enactment, specific to the crisis period, dominated by the need to act at speed, informed by the prioritization of children's welfare and involving ethical and moral decision-making in response to outside rules and guidance, within the confines of resources and in the light of local priorities [90]. Ref. [91] note that navigating an unexpected crisis such as the COVID-19 pandemic in fact induced school leaders to manage rather than lead their school virtually due to the accumulated bureaucratic work that often negatively affected school leaders' time management and essential interaction communication and collaboration among staff members [92].

5.2.2. Academic Challenges

Difficulties in the Organization and Implementation of Online Learning

Some of the key challenges associated with online COVID-19 instigated teaching practices forcefully adopted by schools to ensure the uninterrupted provision of their educational services are best summarized by [77] as follows: (a) inaccessibility to internet facility [93], (b) lack of information and communication technology (ICT) competency, (c) lack of self-discipline for the students to learn at home and (d) monitoring students' state of learning and progress. Issues related to the organization and implementation of the online learning process were also reported as significant impediments in the transition to distance education, as elaborated by [85] linked to (i) the effective monitoring of students' progress while studying in virtual platforms in relation to the predetermined annual teaching objectives, (ii) the proper evaluation of online course efficiency attributed to the short duration of courses, the large number of students, insufficient student participation, problems connecting to the Internet, the students' young ages and insufficient parental support and (iii) continuously rearranging the online curriculum to ensure students' continuity with their lessons. The proper management of instruction time in distance education due to teachers' inexperience and unfamiliarity with the use of programs and the unavailability of devices for course delivery within a virtual context that led to students' lack of focus, attention and unwillingness to participate and actively engage with learning activities in view of the limited opportunities for genuine interaction with their peers and teacher present in virtual sessions have also been reported by [92]. Ref. [80] point to the challenges posed by the design and implementation of instructional plans in virtual contexts and the organization of teaching material that does not follow uniform guidelines in online platforms precluding easy access in a user-friendly way, especially for students in primary and special education and their guardians while [94] touches upon the issue of leading readiness for teaching online.

Student Inequalities in COVID-19 Instigated Online Education

The exacerbated unequal power relations afflicting marginalized student minorities due to their limited access to the COVID-19 remote online education also emerged prominently in principals' narratives as a constant source of concern. School principals' apprehension in [95] to take prompt action and ensure equal opportunities in pandemic online education for all students reveal their anguish towards the number of disadvantaged and vulnerable pupils belonging to immigrant families who ran the risk of being left behind throughout the prolonged period of lockdown due to their limited knowledge and under-

standing of the Swedish language and the limited availability of resources to allow them to receive help with their schoolwork. Inequalities in the students' socio-economic status were equally cited by school principals in [79] as a contributory factor to students' unequal access to digital education throughout the pandemic period leading inevitably to the widening of educational differences in terms of academic performance in students between public and private schools in Turkey. Similar concerns were raised by Norwegian school leaders in [96] in relation to the academic progress of children with special educational needs who may face the risk of abuse or neglect at home. By adopting an ethical dimension in their school crisis leadership, school leaders in [97] and [87] sought alternative practices to aid students complete their assignments, effectively to manage face-to-face and virtual learning models of instruction and competently provide guidance to parents to establish an educational framework of equal opportunities for all students in online education in the pandemic era.

5.2.3. Organizational Challenges

Establishing Physical Safety Measures

Establishing and maintaining safety measures inside school to protect the physical safety of all stakeholders proved to be an exceptionally demanding task for school leaders who encountered great difficulties in organizing their school units according to the pre-determined health protocols [82] and in compliance with the contingency measures [93], regularly resorting to a series of changes in the timetable and the familiar routine of the school. As evidenced in [83], the management of school classes with the provision for different breaks, continuous teaching hours, an increase in teachers' on-call time while social distancing, the use of masks by students as well as over-sized classes created an extra impediment for efficient protocol application, a procedure which often took place at the expense of the educational process. In addition, the suspicion of some parents and teachers with respect to the containment measures, and the existence of refusals to comply with them, further complicated the work of the principals, arousing, in some cases, tension in these relationships.

Psychological Well-Being of School Members and Positive School Climate

Anxiety and fear management incited by the virus spread and the 'ambiguity of what will happen even the same day' burdened the majority of school leaders with the additional task of psychological support provision to members of the school community, 'an insidious type of burn-out' difficult to overcome that negatively impacted principals' wellbeing [83] (p. 12). The negative impact exerted by this constant psychological distress when living in a constant state of uncertainty towards school organization during the COVID-19 period, when not properly addressed, is specifically stressed by school leaders in [95]. Striving to alleviate staff and families' fear and anxiety to physically attend open schools with no official knowledge about how the virus works and living in a new reality formed by the imposition of restrictions and recommendations that resulted in a new state of school normality were viewed as open threats to school resiliency to be remedied by the inculcation of collective trust and a positive school climate. In Bogans et al.'s [87] terms, processing the stress and anxiety of the pandemic became a spoken realization for school leaders as they came to be the main source of emotional support for their school community throughout the pandemic. They played the role of cheerleader and coach to their faculty and staff by allotting time to address their socio-emotional and mental health needs as well as their own personal emotions, de-escalating the fears of parents as well as supporting students through the economic and health-related hardships they were experiencing. They invested in building strong interpersonal relations and collective trust between principals and staff to reassure parents' fears, achieve organizational stability and accomplish crucial goals in times of crisis [96] displaying an empathetic stance towards students and staff via meaningful and sympathetic communication and interaction [94] and repeatedly tried to minimize feelings of alienation and isolation among staff members involved in the delivery of COVID-19 online education, supporting teacher-student relationships, providing and

sustaining their motivation and maintaining school–community communication channels via mostly ICT-supported tools [85].

5.3. RQ2: School Crisis Leadership Practices Adopted in the COVID-19 Era

The key school crisis leadership practices and response strategies most commonly adopted by school principals globally in different stages of the COVID-19 pandemic were identified in 34 empirical studies (80.95%) and are further discussed in three categories, i.e., Pre-crisis, Crisis and Post-crisis school leadership practices based on Coomb's [98] crisis management lifecycle.

5.3.1. Pre-Crisis Leadership Practices

Sensemaking

Sensemaking, as a crisis management strategy intended 'to arrive at a collective understanding of the nature, characteristics, consequences, and potential scope and effects of an evolving threat' [66] (p. 82) has been particularly stressed in the early phases of a crisis as a vital element that can determine critical decision making and planning [99]. Elaborating on the significance of sensemaking as a prerequisite stage leading incrementally to proactive team resilience enactment at school, Ref. [100] leans on evidence provided by 11 international school principals describing the process as experienced by them in the COVID-19 years as one involving (a) a psychological shift in leadership that was required to deal with the early intensity of the pandemic crisis, the ongoing complexities and uncertainties that unfolded and, ultimately, the need to survive, (b) school leaders' awareness of their own as well as their staff members' capacities in building a strong resilient team, (c) a reconsideration of past leadership practices, traditions and values while trying to find ways to mitigate the spread of the virus in their school communities and the transitioning to online learning, (d) a progressive adoption of responsive enactment allowing their teams to innovate and be empowered to make a difference, resulting in (e) the emergence of a restorative and collective synergy that allowed many principals and their teams to persist in times of great disruption and change.

Following school principals' accounts in [94], the detection of the early signals of the health crisis enabled the adequate planning and better preparation of their school community by ascertaining the availability of digital devices for all students, organizing staff professional learning and having trial online learning days. Additional evidence provided by [101] reveals the extent to which school leaders' decision-making behaviors in different educational contexts and the ability to effectively communicate their decisions to acquire the commitment and trust of stakeholders in the school community were predominantly determined by their sensemaking capacity to properly interpret the inconsistencies and complexities posed by alternating policies. In [102], the effective utilization of organizational sensemaking involving interpretation of the environment in and through interactions with school members allowed school leaders to comprehend the world and act collectively and exhibit 'nimbleness in leadership' during COVID-19's turbulent times [103] by being able to recognize and effectively respond to multiple urgent situations without significant input from others and to radically adapt to current organizational models and routines via the proper utilization of appropriate crisis coping strategies [104]. According to [97], situational awareness, i.e., understanding fully the dimensions of the crisis, formed an integral component part of school crisis leadership influencing the way educational leaders constructed their new roles, applied equity practices and relied on values, ethics and moral leadership to guide their decision making to better serve the needs of under-resourced students in marginalized communities and school districts.

5.3.2. Crisis Leadership Practices

Adoption of New Managerial Practices

The results presented in this section verify the extant literature on crisis management in terms of the adaptation, change or extension of normal leadership roles and responsibilities

it entails [105] and describe the new management practices school principals were forced to assume in view of the COVID-19 crisis [106]. As noted by [107], adaptability in their daily management practices was often accompanied by a shift in school principals' beliefs over educational leadership in times of crisis from a set of standard practices into an experience of an active process of adjustments when the need arises. Overall, empirical data reveal that school leaders engaged in a two-pronged approach to lead school crisis throughout the pandemic years [108] by assuming new duties to:

- *Ensure safe schooling*, and also set the context for future schooling via a comprehensive understanding of COVID-19 based on the most up-date and accurate available information on the disease. Following [108], this role included being an active information mobilizer and policy interpreter of the new rules and regulations released on a daily basis with little to no warning as well as managing the physical distance between school members, establishing effective communication strategies, motivating staff, establishing trust and proactively reducing inequities in access while learning virtually also called for action on school principals' part. The majority of school principals admitted they were not fully prepared or trained on pandemic preparedness, nevertheless students' health and security were prioritized in their responses [89] emphasizing the need to refine certain classroom safety measures, such as class size, the availability of critical resources for student safety, establishing pandemic management committees comprising all major stakeholders to increase safety preparedness in schools [109], promoting disinfection processes via the availability of necessary equipment and chemicals [79] and even considering the installation of ventilation systems and air conditioners at the initial stages of the health crisis [85].
- *Extend their role of instructional leader* to that of a digital instructional leader by supporting educators, students and parents in transitioning to a different way of schooling. School leaders exclusively focused on the provision of high-quality distance education, systematically planned and based upon a modified curriculum and dependent on a partnership with the wider school community to ensure learners' access to remote online education [110]. They paid exceptional attention to the planning and coordination of the courses and the management of instructional processes and supported their teachers in the management of distance education processes, increasing their morale and motivation by closely monitoring online and offline education practices. Social media management, online readiness and online project management were also considered to be integral management skills of school leadership in times of crisis [79].

Building School Resilience in the COVID-19 Era

School resilience has also been reported to be an essential determinant in strategic response planning based on concrete actions, management coordination processes, and the choices of practices appropriate to the context of the COVID-19 crisis situation [111]. Tracing international K-12 school leaders' struggle to navigate their organizations' responses throughout the pandemic period, Ref. [112] describes the basic tenets of a comprehensive school crisis resiliency framework consisting of the following elements: (i) high levels of psychological safety on leadership teams that enabled more effective planning and the execution of solutions to meet the needs of an ever-changing environment; (ii) the use of surveys and focus groups to inform schools' work; (iii) transparent areas of focus that limited community conflict and made COVID-19 responses more manageable; (iv) small primary COVID-19 response teams used for more effective leadership throughout the crisis; (v) the incorporation of a staff learning focus to their COVID-19 responses that enabled greater flexibility and adaptability; (vi) intentional student leadership training that led to community engagement and increased student welfare and, finally, (vii) the adoption of approaches to empower teachers' design learning that worked for their learners resulting in student engagement and a high rate of attendance.

Team building and inculcation of a sense of connectedness among members of the school community have also been considered as key ingredients of school resilience re-

taining staff and students' high morale and preventing deviations from organizational goals [79]. Principals consistently stressed the usefulness of their efforts to promote a sense of community and instill a sense of belonging in school communities by updating teachers and parents about the situation on a regular basis [83], visiting and observing online classes, meeting with teachers who were struggling with this crisis and striving to manage this situation and providing support to teachers [80]. Cooperation between teachers followed by a pre-existing positive school climate and relations with their colleagues boosted by staff motivation enhancement strategies [89] were found to play an important role in dealing with adversities lending support to previous research that has indicated that principals' ability to build a culture of trust can offer them leverage in the existing structures to better support their school communities [113].

Resorting to Their Own Personality and Leadership Skills

Available empirical evidence in the studies revealed a differentiation in the way school principals worldwide chose to adapt their current practices in response to the pandemic based on the personal qualities and capacities they had at their disposal. Following [114], the majority of school leaders in their study exhibited an 'awareness' of their own skills (e.g., self-awareness, promoting trust and confidence) and leadership attributes (e.g., resilience, calmness, empathy, supportiveness and patience) upon which they tended to draw to self-manage in the COVID-19 era. The same theme is also reiterated in a series of other studies where school leaders reported that they often resorted to their reservoir of strength, values and support to navigate the situation calling on such values and ideals as transparency, interdependence, collaboration and trust to pull them through the crisis and to lead the school against all odds [78]; drew on their professional resilience to find ways to articulate and enact their strategic responsive planning with a clear sense of purpose and to encourage collegiality among all members of their school community [84]; displayed adaptability, flexibility, tolerance and resilience to lead effectively within the pandemic context and to overcome adverse incidents associated with infected people's privacy and potential discrimination [89]; lead with optimism and empathy and complied with students' and families demands due to the changes imposed by the transition to online learning education [94]; maintained a positive and courageous mindset and exhibited a strong desire to lead, persevere and innovate the functionality of school to ensure the survival and recovery of their school community, reviewed their school strategic plans and restructured the school's teaching plan to ensure the process of teaching and learning was not interrupted [77]. Being proactive has also been found to be an important trait for school crisis leadership utilized most effectively during both the confinement and post-confinement periods [115].

The mobilization of their personal, social and school management skills and the experience to manage the unprecedented conditions of the health pandemic were equally reported vital for Greek principals in [83] enabling them to cope and keep control of the situation adopting a calm attitude and exhibiting determination, patience, perseverance, a good mood and empathy at all levels. Keeping their temper and acting promptly to meet stakeholders' needs by relying on their own expertise, as reported in [116], transformed school leaders into safe havens for their small, rural communities by providing support to families with food and resources and helping them stay connected to the school community. Leading with creativity and care has also been identified by [117] as a valuable leader quality with a critical role especially in the preparation for schools' transition to online digital learning. Following [101], school principals' resourcefulness and a risk-taking approach largely determined their efforts to (i) sustain and overcome the challenges of remote online learning via a mix of offline and online platforms to tackle effectively the digital divide and the use of innovative teaching and retention strategies (e.g., the use of e-resource group in preparing offline learning materials) and (ii) protect students and staff against the chaos and complexity of external stakeholders via the provision of meals and other social services. Aside from organizational vision and a belief in the core values of connectivity, collective

wisdom, collaboration, adaptability and risk-taking already mentioned above, showing empathy for students and families has also prominently featured as a key school crisis leadership trait in [118] underscoring the importance of emotional leadership as evidenced in principals' efforts to attend and resolve educators' and families' social, emotional, and mental health concerns throughout the pandemic crisis.

Building Collaboration and Trust

Collaboration among stakeholders and members of a school community is viewed as a highly important component of school leadership in times of crisis as it positively influences responses during and immediately after the crisis event [64]. In alignment with the above finding, collaboration and networking were also extensively embraced by the majority of school principals throughout the pandemic period as an alternative means to ameliorate the stress-induced isolation experienced by staff members and foster student engagement and participation in a remote learning environment [80]. For school principals in Adams et al.'s [77] study, forging positive relationships via open communication among teachers, students and the school community during the crisis engendering feelings of genuine trust with each other and, thus minimizing stress due to working and learning from home loomed as a pressing need. A school community permeated by strong collaborative ties and mutual trust and reciprocity among parents, teachers, and students was viewed by school leaders as an integral factor that informed how they communicated, made decisions, led, and were accepted or even challenged by their constituents [117] while confronting the situational ambiguities of the pandemic with resilience by relying on the mobilization of school members' strengths and skills and the exchange of knowledge amongst the staff [78].

Establishing Channels of Communication

Meaningful and comprehensive communication has been acknowledged as extremely impactful on a school's organizational culture and trust development among members of a school community [119] assisting school leaders to cope with the rapid changes accompanying crisis development [106]. Indeed, communication became an indispensable tool in school principals' hands for the maintenance of the virtual image of the school as a unified community by regularly contacting parents, checking on the most vulnerable and providing a listening ear to those in need [84]. To achieve this, effective school leaders used all available communication channels (e.g., social media, website, newsletter, emails, calls, text messages) to disseminate information provided by the Ministry of Education [80] and to maintain uninterrupted communication among staff members to support them in their efforts to provide their educational services in the most sustainable manner [79]. Regular check-ins with students, staff and families over wellbeing issues via two-way communication via a forum for feedback was particularly valued by school principals in [94] as it greatly contributed to the reinforcement of trust between school leaders and stakeholders [120]. Clear and frequent communication within the school community was equally applied by principals in the hope of instilling safety measures to mitigate the potentially life-threatening impacts of the COVID-19 pandemic as well as in managing psychological issues experienced by staff [88].

Intense cooperation and effective interaction on a frequent basis among members of the school community was equally deemed essential by school principals in their efforts to elevate their spirits via different online platforms [92] and provide a sense of continuity, task-focused coping, psychosocial support and guidance for their staff [96] and sense-making by supplying correct and clear information about the pandemic situation, rules and regulations [78]. Structures and systems of communication that existed prior to the pandemic (e.g., office hours, regular class meetings) were heavily utilized to ensure that meaningful connections were maintained, and were subsequently reinforced by the use of technological tools [118]. In [121] and [87], increasing communication and coordinating online enactment activities such as holding weekly administrative meetings, weekly parent forums to surface questions and concerns and joining weekly state sponsored meetings to

disseminate reopening guidance enabled school principals to provide timely and accurate information to stakeholders and the needed resources to address the myriad logistical, academic and technical challenges faced by parents, teachers, students and school boards. Constant communication among staff members also contributed towards organizational capacity-building via the formation of emergency response teams, i.e., a Crisis Management Meeting enabling school managers to make decisions and convey information smoothly and a Project Team that accorded all local teachers with the opportunity of engaging in the process of decision-making, aiding the school staff work in unity and surmounting the pandemic's challenging circumstances [89]. Persuasive communication between experts in the school crisis management teams also enabled leaders to effectively convey important COVID-19 related issues to the stakeholders and proactively engage them to identify interventions on a strategic level [101]. The use of feedback loops to gather, process and operationalize information from multiple stakeholders (internal and external) was also perceived critical by school leaders in the development of their decision-making process in the lockdown period [122].

Leading with Equity

In view of the deep inequalities in educational provision exposed in multiple school communities globally during the pandemic [123], school principals in our sample exhibited a propensity towards a more humanistic leadership approach targeting the provision of equal opportunities for all students in digital education by mitigating adjustment problems at school both during and after the pandemic crisis [85]. Constrained by inadequate funding and technological equipment, principals still tried to promote inclusive education at all costs [107], behaving patiently, compassionately and humbly and emphasizing the importance of overcoming COVID-19 crisis as one following a more loving, understanding and just management approach [80]. Equally, addressing issues of equity of access and privacy for students in special education in the early days of emergency remote learning by school principals in [103] entailed frequent meetings with teachers and support staff to problem-solve, the development of action plans to support specific students and driving to the homes of these students to provide devices that would allow them access to the Internet and assistive technologies such as alternative keyboards and manipulatives that could be used in learning activities. However, as schools already move into a recovery mode of teaching and learning, it becomes imperative that educators and policymakers reimagine effective interventions at the school level to abate and negate COVID-19 learning losses and consequent exacerbated inequities in the educational process within a supportive school environment that can effectively promote and nurture cognitive as well as social/emotional skills, as suggested by [124].

Networking

The practice of networking, of being connected to a network of colleagues so that they can be well-supported and gain all the associated benefits of their participation, was consistently applied by school leaders during the COVID-19 pandemic [84]. Principals repeatedly recognized their reliance on the collective wisdom that existed across organizations and geographic boundaries [88], tapped into their collective networks and connected with colleagues in other parts of the world that were among the first affected by the pandemic, thus allowing their organizations more time for conversation, planning and response [118]. They were better able to respond via effective sensemaking [94] and to manage the first phase of the compound crisis by collaborating, gathering information or seeking the expertise of colleague principals [117] and by satisfying their own psychological needs for companionship via collegial support and the constructive exchange of ideas [78] to respond to the ongoing nature and complexity of the 2020 disruptive landscape. Ongoing professional peer support, as provided in the form of informal roundtables focusing on problem-solving and information sharing, was immensely appreciated by principals [121] as it fostered the growth of their skills and provided a sounding board to process deci-

sions [87], while leaning on their peers and colleagues for ideas and strategies to assist with technology distribution, master scheduling, communicating with stakeholders and monitoring delegated tasks in a non-judgmental and non-evaluative manner. Evidently, the above findings lend support to Watson and Singh's [114] claim that exercising networking leadership emerged as an educational imperative rather than a choice as it may have been in the pre-pandemic period.

Providing Emotional and Social Support

Leaders' responsiveness to the social, emotional and psychological needs of school staff and the wider school community by exhibiting support, empathy, care and a sense of security as an essential feature of crisis leadership has also been identified as an integral practice applied by school leaders to approach staff, discuss their feelings and worries and to provide appropriate support [107]. Shifting their interest from 'caring for individuals' to 'caring for the community' [125], school leaders deployed a series of rehabilitation practices to identify stress signals and emotionally support staff, students and their families, taking on the role of the caretaker for their school communities by serving as advocates to meet the needs of stakeholders by focusing on the social-emotional well-being of teachers; providing social emotional support for students and families; remaining a constant and calming presence within the community; and showing remarkable self-reliance and resiliency [116]. In practical terms, principals suggested an increase in social activities as a useful means to enable students to overcome emotions of isolation and depression in the post-pandemic era and the adoption of awareness-raising activities to boost staff members' morale and enable them to combat the negative emotions of burnout, inefficiency and aimlessness inculcated by the constant changes and uncertainties of the COVID-19 era [85].

Student wellbeing was specifically addressed by school leaders in [78] via multiple initiatives and activities organized along with academic classes to cater for the heightened emotional needs of their students arising as a result of the changed context of online schooling despite the lack of available online counseling services to support their efforts. Of equal importance are the self-care practices school principals in the same study reported to engage with in attempting to battle the stress and anxiety they were intensely experiencing within the health crisis maintaining the equilibrium between their physical and mental health while keeping going on with their duties and responsibilities. Interestingly, a small number of school principals stated resorting to such practices due to the conscious effort usually required in undertaking them to the detriment of their job demands. This aligns with Coquyt's [102] findings where self-care practices were dismissed as unnecessary by school leaders as they claimed that they were equally capable to manage their emotional world as effectively during the pandemic era as they had handled them in the past on both the professional and personal level.

5.3.3. Post-Crisis Leadership Practices

Promoting Organizational Resiliency through Learning and Reflection

Scant evidence available in the reviewed studies indicates the limited extent to which school leaders capitalized on the pandemic crisis as a unique opportunity for self-reflective learning over their failures and revised their practices accordingly for the effective management of similar dystopic incidents in the future. For superintendents in Coquyt's [102] study, COVID-19 pandemic enabled them to sharpen their critical thinking and problem-solving skills while trying to improve their flexibility and adaptability in decision-making and enhance their communication with all interested parties by becoming more transparent and seeking feedback from stakeholders more regularly. For school principals in a remote, rural community in Central Jamaica, the pandemic era induced the development of their communicative skills via training to restore and enhance school-community interactions at the post-crisis stage [126]. Similarly, educational leaders in [101] were seen to reconsider and restructure initial ideas and plans replacing them with alternative methods and

practices to improve school-level operations and to attend to concerns of mental health exacerbated by the pandemic in their educational institutions in the recovery phase.

Applying Risk Management

Risk management permeated the responsive practices adopted by school leaders throughout the COVID-19 pandemic, nevertheless in [89] it was largely applied in targeted schools in their study after reopening in two steps, involving (i) the application of established measures and (ii) maximizing risk-reduction actions when guidelines cannot be applied. According to the researchers, in the former case, all educational practices came to presuppose and incorporate local and national government guidelines to reduce risks that prohibited some educational activities (e.g., singing songs, doing sports) as preventive measures and thus, curtailing the potential of lessons to be tailored for individual students. However, local teachers strived to maintain the quality and quantity of lessons. In the latter case, school managers encouraged local teachers to endeavor to minimize risk and do their best for students, although they found it difficult to apply preventive measures completely.

5.4. RQ3: School Crisis Leadership Style in the COVID-19 Era

Data in eleven (11) studies (26.19%) in our sample provided sufficient evidence to answer our third research question in relation to which leadership style was the most effectively integrated within the crisis responsive strategy plan that school leaders followed in the COVID-19 pandemic era. Based on school principals' responses, distributed and collegial or collaborative leadership styles emerged as the two predominant styles.

A distributed leadership style enabled scholar leaders to recognize imminent crisis warning signs and organize their responsive strategy by exhibiting resourcefulness in quick decision-making, identifying opportunities, behaving, adapting to situations, handling information, using resources to assess situations, displaying confidence in their ability to navigate a system fluidly and the ability of sensemaking during the COVID-19 pandemic [93]. The delegation of duties to others within the school was perceived as imperative by school leaders as they strongly believed that ensuring the organization, implementation and monitoring of assigned tasks could guarantee that all school-wide processes and protocols were managed and conducted with a high level of quality within the pandemic era [87]. Leading in a distributive manner enabled the implementation of intervention plans to promote students' academic achievement within a positive school environment [77] where subject experts in online learning practices were appointed to guide less experienced teachers to get ready for the transition (see also [118]). Distributed leadership noticeably became a particular strength, allowing the assignment of some responsibility and some continuity of decision-making within existing networks in the school communities and, in effect, leading to the emergence of community resilience [84]. For all the above reasons, school principals in different educational contexts worked hard to maintain it by relying on staff's dedication and capacity to engage with students effectively, despite the general lack of supervision, although they were at times forced to espouse a more 'directive' decision-making power due to the limitations in interpersonal communication imposed by technology [127].

Collaborative leadership, often existing in tandem with a distributed leadership style, nevertheless emphasizing a sense of 'us-ness' [128] and an aspiration to work for the collective good of staff, pupils and parents, was equally favored by school principals in the pandemic period. School principals in [94] fully realized that demonstrating their trust in their staff during this crisis was vital in managing the school and further acknowledged the need for working together as a team as essential in bringing a sense of belongingness which was crucial for better educational outcomes. Their adopted crisis leadership involved the distribution of leadership to staff, community leadership, involvement in community networks and keeping families connected and informed about the efforts schools made over lockdown. Leading their school in a consensual, distributive, motivational, participatory, inclusive, harmonious and collaborative manner reportedly made every member feel responsible towards problem-solving situations [78] and achievement in their new

duties [107] to cope with the crisis. As principals' leadership seemed to have become more complex, with higher stakes and less room for error, it required a huge sense of responsibility to decide how the school should cope with the crisis and a collective crisis leadership response based on collegial networking [96] that enabled principals to respond effectively to the unique challenges presented by the pandemic and by the isolating nature of the state-wide lockdown in relation to issues of (a) logistics, communication, resource distribution and technology use, addressed primarily via the development of a plan by the leadership team to alleviate inequities in access to educational resources, (b) grading procedures, student engagement and achievement, forcing people throughout the educational system to shift mindsets to maintain students' and teachers' confidence and mental health during a crisis within the virtual classroom and (c) the provision of professional development to aid teachers to confidently work through such unique educational circumstances providing opportunities for teachers to enrich new skills and develop new mindsets around creating and delivering online instruction [122].

Table 2. Profile of the Reviewed Studies.

	Authors	Source	Research Methodology and Participants	Educational Context	Country
1.	Adams et al. (2021) [83]	Journal	Qualitative study based on a survey questionnaire—32 school principals	secondary education	Malaysia
2.	Ahlstrom et al. (2020) [3]	Journal	Qualitative study based on a survey questionnaire—316 school principals	primary and secondary education	Sweden
3.	Alarcon (2021) [5]	Journal	Qualitative study based on a survey questionnaire—57 school principals	primary and secondary education	the Philippines
4.	Banerjee-Batist et al. (2022) [7]	Journal	Qualitative study using a multiple-case design based on interviews	primary (K-12) education and higher education	USA and India
5.	Beauchant et al. (2021) [9]	Journal	Small-scale qualitative study based on interviews—12 school principals	secondary education	UK
6.	Bent-Cunningham and Mauzard (2021) [10]	Journal	Implementation qualitative study based on SWOT analysis and interviews—7 school leaders	primary education	Central Jamaica
7.	Betancur (2022) [11]	PhD Thesis	Exploratory qualitative case study based on interviews—12 school principals	secondary education	USA
8.	Bogans et al. (2022) [13]	PhD Thesis	Qualitative study based on electronic survey questionnaire and structured interviews—15 (questionnaire) 10 school principals (interview)	primary and secondary education	USA
9.	Botbyl (2022) [18]	PhD Thesis	Qualitative phenomenological study based on interviews—11 International School Heads (ISH)	English-medium not-for-profit international schools	ISH situated in different locations around the world
10.	Bradbury et al. (2022) [19]	Journal	Qualitative research projects based on interviews—66 school principals	primary education	UK
11.	Brion et al. (2021) [86]	Journal	Qualitative case study based on interviews—30 K-12 leaders	primary (K-12) education	USA
12.	Cahapay (2022) [24]	Journal	Phenomenological qualitative study based on interviews—12 school principals	primary (K-12) education	the Philippines
13.	Charalampous et al. (2021) [26]	Journal	Qualitative study based on a survey questionnaire—93 teachers and 5 school principals	primary and secondary education	Cyprus
14.	Chitpin and Karoui (2022) [27]	Journal	Qualitative case study based on interviews—11 school principals	primary (K-12) education	Canada
15.	Cota (2022) [33]	PhD Thesis	Qualitative study based on semi-structured interviews—11 school principals	primary (K-12) education	USA
16.	Coquyt (2021) [34]	Journal	Qualitative case study based on semi-structured interviews—8 superintendents	public mainstream education	USA
17.	Crane (2022) [35]	PhD Thesis	Phenomenological qualitative study based on interviews—14 high school principals	secondary education	USA
18.	Dizon et al. (2021) [36]	Journal	Quantitative study based on a survey questionnaire—27 school principals	secondary education	the Philippines
19.	Erol and Altunay (2022) [38]	Journal	Phenomenological qualitative study based on interviews—93 school principals	primary and secondary education	Turkey
20.	Fedele et al. (2021) [39]	Journal	Qualitative study based on project management reports and interviews—6 school principals	secondary education	Italy

Table 2. Cont.

	Authors	Source	Research Methodology and Participants	Educational Context	Country
21.	Harahap et al. (2022) [53]	Journal	Phenomenological qualitative study based on semi-structured interviews—17 teachers and 2 school principals	primary education	Indonesia
22.	Hayes et al. (2022) [59]	Journal	Qualitative study based on interviews—10 school principals	primary education and secondary education	USA
23.	Jarvis and Mishra (2020) [65]	Journal	Qualitative study based on interviews—11 school principals and 2 faculty heads	secondary education and higher education	different locations around the world
24.	Kavrayici and Kesim (2021) [85]	Journal	Qualitative case study based on semi-structured interviews—15 school principals	primary education and secondary education	Turkey
25.	Kusumi et al. (2022) [73]	Journal	Qualitative case study based on semi-structured interviews—2 school principals and 8 teachers	special education	Japan
26.	Lien et al. (2022) [76]	Journal	Qualitative study based on interviews—15 school principals	primary education	Norway
27.	Mchunu (2022) [79]	Journal	Qualitative study based on semi-structured interviews and a survey questionnaires—10 school principals	secondary education	South Africa
28.	McLeod and Dulsky (2021) [80]	Journal	Qualitative study based on semi-structured interviews—55 school principals from 43 school organizations around the world	secondary education	International Schools, USA and China
29.	Muldoon (2021) [84]	PhD Thesis	Qualitative study based on semi-structured interviews—9 school principals	primary and secondary education	different locations around the world
30.	Neelakantan et al. (2022) [84]	Journal	Qualitative study based on semi-structured interviews—8 school principals	primary and secondary education	India
31.	Panunciar et al. (2020) [91]	Journal	Qualitative study based on semi-structured interviews and note-taking—various school principals	primary and secondary education	the Philippines
32.	Pollock (2020) [95]	Journal	Pilot qualitative study based on semi-structured interviews—17 school principals	secondary education	Canada
33.	Ramos-Pla et al. (2021) [97]	Journal	Quantitative study based on a survey questionnaire—204 school principals	primary education	Spain
34.	Reeves et al. (2022) [98]	PhD Thesis	Quantitative study based on autobiographical data from case studies—4 school principals	primary and secondary education	USA
35.	Respus (2022) [100]	PhD Thesis	Qualitative multi case study based on survey questionnaire and interviews—6 school principals	primary education (private)	USA
36.	Reyes-Guerra et al. (2021) [101]	Journal	Qualitative study based on structured interviews—9 school principals	primary and secondary education	USA
37.	Sider (2020) [105]	Journal	Qualitative study based on interviews from a sample of 5000 school principals working in special education	special education	Canada
38.	Spyropoulou and Koutroukis (2021) [111]	Journal	Qualitative study based on questionnaire with open-ended questions—57 school principals	primary and secondary education	Greece
39.	Thornton (2021) [118]	Journal	Qualitative study based on interviews—18 school principals	secondary education	New Zealand
40.	Varela and Fedynich (2020) [87]	Journal	Quantitative study based on a survey questionnaire—30 school principals	K-12 education	USA
41.	Watson and Singh (2022) [124]	Journal	Mixed methods study based on a survey questionnaire with closed and open-ended questions—251 school principals, heads and managers	primary and secondary education	Australia
42.	Wortham and Grimm (2022) [129]	Journal	Case narrative study—1 school principal	secondary education	USA

6. Conclusions

COVID-19 was a shared global experience and an interruption to the normalcy of school that ‘amplified challenges in the modern organizational context’ [130] forcing an adaptation of traditional school leadership practices in the face of increasingly volatile and extremely uncertain, complex and ambiguous circumstances [129] that rendered the pandemic a public education crisis. This systematic review synthesizes research evidence identified in a sample of 42 empirical studies on crisis leadership as experienced by school

principals in a variety of educational contexts focusing on the key challenges encountered and responsive practices applied within the context of the COVID-19 pandemic. This review offers significant insights into school crisis leadership and, hopefully, provides a vital foundation for future research in the area of educational sciences. A summary of the key findings of our review in relation to our three initial research questions reveal the following:

- (a) Challenges reported to have severely impacted school activities and operations during the COVID-19 pandemic were largely identified as logistical in nature, related to a:
 - (i) Substantial lack of infrastructure and technological equipment at the school level undermining learning continuity and the quality of remote online education; (ii) a lack of adequate funding resources that hindered the materialization of a school crisis management plan, as evidenced in material deficiencies and shortages in human resource and (iii) an absence of a solid crisis plan exposing school leaders' ill-preparedness, helplessness and dismay to adjust swiftly and to respond promptly within the ambiguous COVID-19 context.

Academic challenges encountered by school administration in the process of school transition to emergency remote online learning procedures when addressing equity and student performance gaps depended on the extent of their accessibility to digital education, organizing, implementing and monitoring online learning practices, using and managing virtual platforms, supporting staff members in issues of digital literacy and distance education practice via sustained professional training and finally, organizational challenges related to school leaders' efforts to ensure physical, emotional and mental health for all school members and to work as a team striving towards the survival and general wellbeing of all stakeholders in their school community.

- (b) Key school crisis leadership strategies that were found to be applied in different stages of the COVID-19 pandemic were: (i) the practice of sensemaking, allowing school principals to resort to adaptive decision-making upon the realization of the multi-faceted, yet fluid, nature of the pandemic crisis, (ii) the adoption of new managerial practices prioritizing safe schooling and extending their role as digital instructional leaders providing for the psycho-social wellbeing of staff, students and families in the process, (iii) setting a school resilience framework based on the tenets of team building, connectedness, belongingness, sound interpersonal relations and trust among staff members using motivation enhancement strategies, (iv) leaning on their reservoirs of personal qualities, values and skills to make decisions and enact their responsive strategy, (v) promoting a school positive culture by promoting collaboration and trust among all stakeholders and members of a school community, (vi) establishing transparent and meaningful two-way communication channels for information dissemination and collaboration among members in their school communities on a frequent basis, (vii) leading with equity trying to ensure digital education for all in an inclusive manner, (viii) being connected to a professional network to gain all the associated benefits of collective wisdom, (ix) tending to the socio-psychological needs of school staff and the wider school community displaying care, empathy and self-reliance, (x) acting proactively and promoting a school resiliency framework for future similar pandemic conditions and finally, (xi) managing risk and maximizing risk-reduction actions when set guidelines were not applied, but not to the detriment of the teaching practice.
- (c) With respect to our third research question, distributed and collaborative leadership styles were equally valued by school leaders in practice during the pandemic period enabling them to efficiently organize their responsive strategy, instilling a spirit of shared responsibility to others within the school via a delegation of duties and an emphasis on collegial network and a sense of belongingness aimed towards the adoption of a collective crisis leadership response.

These findings develop practical and theoretical understandings of crisis leadership in the school context. Through continuing professional development, principals could acquire the skills necessary for both crisis management and day-to-day school management. Managing groups of people with diverse characteristics, making and implementing decisions under uncertainty, handling risk, promoting innovative strategies and dealing with long-term consequences are some of the skills of an effective school leader in disruptive times. For researchers and policy makers, the pandemic posed difficult challenges that were hard to meet; the most demanding challenge is how to reform bureaucratic governance structures, processes, staffs and cultures that are not designed to cope successfully with novel situations and predicaments.

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