



# Exploring crisis management measures taken by school leaders at the unpredictable crisis – case COVID-19

Jussi-Pekka Peltola<sup>1</sup> · Eila Lindfors<sup>1</sup> · Emilia Luukka<sup>2</sup>

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## Abstract

The COVID-19 pandemic was an unpredictable crisis for schools. Schools transitioned their teaching from classrooms to teaching online. The holistic safety of the schools' was under a serious threat. Various measures of crisis management aimed at upholding holistic school safety, which includes physical, social, psychological and pedagogical safety.

This review employs both narrative review method and thematic analysis to investigate the crisis management measures that school leaders undertook during the 2020 COVID-19 pandemic in terms of holistic school safety while modifying key operations of the school. In addition, the stressors and resources of school leaders' were examined. The non-systematic, explorative search for literature conducted between autumn 2020 and spring 2021 yielded a total of 10 articles.

School leaders' crisis management measures to maintain holistic school safety in 2020 comprised running the organization, supporting teachers, and supporting students. Extensive measures to limit physical contact posed a threat to psychological, social and pedagogical safety. School leaders worked in a stressful situation. Flexibility and human-centered approach were necessary to cope.

In future crises, predicting consequences at every level is important when preparing plans and considering leaders' tasks as part of crisis management plans to ensure holistic school safety. In crisis situations, priority must be given to tackling the primary threat, but the overall impact of measures on school safety must be taken into account.

**Keywords** Crisis management · School leaders · School safety · COVID-19 · Narrative review

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Extended author information available on the last page of the article

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## Introduction

Schools are microsystems responsible for supporting students' learning and for creating a safe and secure environment for staff and students (Kafa, 2021; Sindhi, 2013). The responsibility for the safety of the school lies with the school leader, and in most countries, this is mandated by law (e.g. in Finland the Basic Education act 1998/628). Nevertheless, school leaders' self-perceptions of their roles and responsibilities regarding school safety have been found to vary in different countries (Chan et al., 2019). This review considers school safety using a holistic approach, where either physical, psychological, social nor pedagogical hazards does not exist.

Crises form a threat to holistic school safety (Hull, 2010; Bhebhe et al., 2019; Hardy, 2014), and schools as organizations are vulnerable to disasters and crises, which pose a threat to school safety (Hull, 2010; Lindfors & Somerkoski, 2018). According to Grimmelt (2017), a crisis is a "sudden event or set of circumstances, that could significantly affect an organizations' ability to carry out its' business". Canyon (2020) defines a crisis as an uncertain situation possessing latent risks and opportunities that must be resolved within a certain timeframe. Crises may damage organizations' reputation, environment, health, safety or wellbeing. The fundamental characteristic of crises is that they are unpredicted. Three distinct types of crises can be identified. These, according to Elbedour et al. (2021), are (1) organizational level crises, which threaten the whole school and its staff directly and immediately, (2) community level of crises, which are chronic environmental stressors that evolve over a longer period of time, and (3) individual level crises, such as difficulties within a family or traumatizing event.

## Context of the study

COVID-19 is a disease caused by a new strain of coronavirus, the symptoms of which may include fever, cough and shortness of breath. (UNICEF, 2020.) As a disease, COVID-19 is highly infectious, and was declared a pandemic in March of 2020 by the World Health Organization (WHO). The pandemic was followed by massive lockdown globally to avoid social contacts among people. Schools struggled with a variety of issues to sustain schoolwork and to keep staff and students safe (Venkatesamy & Hu, 2022). During the COVID-19 crisis, school leaders interpreted their roles as schools' crisis managers as organizational leaders, professional decision-makers and emotional supporters (Da'as et al., 2023). National governments published lists of preventive measures for schools aimed at stopping the virus from spreading (UNICEF, 2020). Issues of school climate, physical and psychological safety were major concerns of school leaders during this time. School leaders identified physical security measures as necessary to control an infectious disease. (Chatzipanagiotou & Katsarou, 2023.) Teachers felt stressed, tired, isolated and decreased feeling of collegiality with other teachers (Schiller et al., 2023). As the pandemic spread, schools needed to contend with obscure instructions aimed at ensuring a safe learning environment for all, for which reason school leaders had to take care of safety in a variety of creative ways (Mutongoza et al., 2021).

Schools were not well prepared to face the crisis caused by the COVID-19 pandemic (e.g. Mutongoza et al., 2021; Ramos et al., 2022). Schools made a multiple changes to limit students' learning loss and to maintain safe school environment for all (Marshall et al., 2022). The most common challenge faced by school leaders concerned self-care, wellbeing and safe school opening. School leaders also felt pressures when balancing to provide safe school environment, while providing continuity for learning with limited resources. (Parveen et al., 2022.) The unpredicted spreading of pandemic formed as a wake-up-call, which highlighted the importance of understanding crisis management (CM) in schools as a dimension to maintain not only the key operations of schools, but also holistic school safety.

### **The aim and RQ's of the study**

The fundamental need for safety in schools requires research-based strategies for implementing school level CM plans to maintain safe learning environment even in unpredictable conditions (Elbedour et al., 2021). COVID-19 crisis has highlighted the need for paying attention to CM in schools (Grissom & Condon, 2021). In this sense, the preparedness for crisis should be an evident part of schools' safety management. It is likely that crises met by schools will not end with COVID-19. Okilwa and Barnett (2021) believe that leading schools during crises will become more important in the future, because under-served and under-resourced communities still exist, and also because there is always the possibility of dramatic and prolonged crises like the COVID-19 breaking out. The ongoing wars in the world and refugees emigrating from war-zones, as well as climate change with its extreme weather conditions present even schools' everyday safety yet again with a situation that will undoubtedly require stretching resources.

This review focuses on identifying CM measures for school leaders in terms of managing and upholding holistic safety on a school-unit level in the beginning of a crisis in 2020, where school leaders' major concern was to maintain and develop school safety under crisis circumstances (e.g. Venkatesamy & Hu, 2022). Previous reviews of the research topic have been investigated the complexity and multi-layered nature of CM (Striepe & Cunningham, 2022), strategies and effectiveness of CM (Chatzipanagiotou & Katsarou, 2023), role of school leaders' in crisis (Kafa, 2021), increased stress of school leaders' in times of crisis (Wilson, 2021) or they focused on a national context (e.g. Hosseinighousheh et al., 2020). This review provides new understanding of measures taken to maintain school safety in unpredictable crisis, as well as produces information of situational affecters, that school leaders may face as safety managers. The literature review was conducted when only early studies of crisis management measures in schools were available, so the data provide insights into the CM measures taken by school leaders in an acute crisis situation. For this reason, the literature review targets to early stage of COVID-19 crisis, and reviews prior studies in which the data provide insights into the CM measures taken by school leaders in an acute crisis situation. The following research questions are posed:

(1) What crisis management measures did school leaders took to response an acute COVID-19 crisis to uphold holistic school safety, and (2) What were the stressors and resources used by school leaders when dealing with acute crisis?

## Theoretical background

### Safety in schools

The definitions of school safety vary by when and where the definitions are made. In United States, school safety focuses generally on violence prevention (especially school shootings) and safety technology (Tanner & McKelvey, 2019), while in the United Kingdom school safety tends to focus on the prevention of bullying or cyber-bullying or on the subjective feeling of safety. In Europe, school safety often relates to road safety (Srichai et al., 2015). However, school safety should be considered more holistically as the overall safety of students and staff, instead of being examined from the perspective of preventing single threats.

A holistic approach to school safety, as implemented in this review, is a combination of physical, psychological, social and pedagogical safety (Finnish National Agency of Education (FNAE), 2023; Teperi et al., 2018). The state of physical safety can be described as a lack of hazards threatening the human body, whether the threat is caused by a human or not (Mubita, 2021; Sindhi, 2013; FNAE, 2023). Psychological (also emotional, see Díaz-Vicario & Gairín Sallán, 2017) safety refers to safety as cognitively experienced by individuals with unique minds, bodies and life-situations. According to Díaz-Vicario and Gairín Sallán (2017), the availability of emotional support, meeting emotional needs and maintaining a welcoming environment free of intimidation, threats and fear determines the existence of emotional safety in schools. Social safety is actualized in social situations as a sense of belonging to peer-groups (FNAE, 2023). In schools with a high level of social safety, the atmosphere is trusting and respectful, and interpersonal relationships are positive (Díaz-Vicario & Gairín Sallán, 2017). The term pedagogical safety stems from Finnish research literature. Pedagogical safety is usually understood as all the measures taken by teachers to encourage learning: content of learning, how the school creates opportunities for participation and influence, following rules, equity, responsibilities and peer-support (Lindfors & Somerkoski, 2018). Rikander (2021) defines pedagogical safety as a sum of physical, psychological and social safety. Thus, pedagogical safety can be seen as a physical, psychological and social safety taking place in a pedagogical context. Safe schooling in its every dimension is a fundamental right of staff and students (Teperi et al., 2018).

School leaders commonly have the main responsibility for the safety management (SM) of the school (Kafa, 2021; Kingshott & McKenzie, 2013). SM relates to the practices, structures and implementations that aim to create and maintain overall safety. An important role of SM is to motivate people to develop their safety performance, to show the improvement of safety culture as the result of continued efforts and to provide education and training to develop safety competence among staff (Geller, 2022). SM plays a major role in the safety performance of organizations by setting the strategy and vision for achieving sustainable school safety (Rahman et al., 2022; Waitinen, 2011). Managing holistic school safety does not happen on its own. Instead, it needs to be managed systematically, and integrated into all activities of the school (Srichai et al., 2015; Díaz-Vicario & Gairín Sallán, 2017; Vallinkoski & Koirikivi, 2020).

## Crises management as a procedure of safety management

Schools are like a second home for children, and a workplace for staff. It is therefore important that schools maintain disaster and crisis preparedness to cover potentially hazardous scenarios (Bhebhe et al., 2019; Kingshott & McKenzie, 2013). There seems to be a few types of crises that schools need to prepare for more than others. A review by Striepe and Cunningham (2022) found that the types of crises that school leaders had faced over a 10-year period included natural disasters (earthquakes, fires, tornadoes, hurricanes), human made disasters (death, suicide, school shootings) or multiple kinds of disasters. Many of these types of crises can be prepared for on national or school levels through crisis management (CM) plans, especially in the case of natural disasters due to their geographical prevalence. Nevertheless, schools are not usually well prepared to face crises, or their preparations may focus on limited kinds of threats (Hull, 2010; Striepe & Cunningham, 2022).

CM can be seen as a special type of change management, where change is unexpected, the size of an incident is great, and the events, which may be critical in terms of life-and-death, occur within a short time frame (Van Wart & Kapucu, 2011). Preparation for crises and CM are parts of organizational SM (Hardy, 2014; Venketsamy & Hu, 2022). Schools as organizations are different from other organizations because of the large number of novices, or students: individuals with limited ability to ensure their own safety (Lindfors & Somerkoski, 2018).

The goal of CM is to find the best possible solutions for an organization and its members to undertake in a turbulent and surprising situation which might last from hours to years. CM is making choices which take into consideration the characteristics of a particular situation (Peltola et al., 2023). CM is also the overall coordination of an organization's response to a crisis; a sudden event or a set of circumstances which significantly affects an organization's ability to maintain its operations (Grimmelt, 2017). A crisis as cyclic phenomenon includes the normal state of affairs outside an on-going-crisis: risk assessment, prevention and preparedness are measures taken before a crisis. Recovery and learning from a crisis are measures taken after crisis. Between these two phases is the acute crisis, where the response to events is immediate. (Pursiainen, 2017.)

## Methodology

The crisis management (CM) measures taken by school leaders during 2020 to response affecters threatening holistic school safety in COVID-19 crisis were investigated using a narrative review method, also called a non-systematic review (Ferrari, 2015). Narrative reviews are used to refer to the efforts made to summarize the literature in a way that is not explicitly systematic (Baethge et al., 2019). Narrative reviews describe and appraise published articles. The methods used to select the articles are described more narrowly than in systematic reviews. (Ferrari, 2015.) The use of narrative review in this paper was found to be appropriate as it allowed researchers to prioritize the results of the searched literature. The research interest of this review based on the concept of holistic school safety, which occurs rarely in scholar topics.

From this point of interest, narrative review allowed to build knowledge of CM measures taken by school leaders, assessed in terms of holistic school safety.

### **Literature search**

To build knowledge of school leaders' CM measures in the early months of the COVID-19 crisis, the literature search was first carried out by two researchers between the fall of 2020 and spring of 2021. During that time, early studies were available which related to the initial phase of the COVID-19 crisis. The search terms "principal", "headmaster", "school leader", "school leadership", "crisis management", "crisis leadership", "turbulent times", "COVID-19" and "pandemic" were used as keywords in different combinations and with different search operators (AND, OR & NOT). The results related to CM were focused on educational contexts by blocking out articles related to the medical sector and health care. The search was carried out with institutional access to an electronic library database of the University of Turku, which allows wide access to both open-access publications and extensive access to databases of various publishers, such as ProQuest's Education Database, EBSCO Education Source, ERIC, Web of Science and Scopus. The search engines included the Utuvalter-search engine and Google Scholar. The search was repeated several times with different combinations of keywords. Citations were chased backwards and forwards to reach more relevant articles.

### **Article selection and screening**

The relevance of the resulting set of articles were first evaluated by reviewing the titles and abstracts. The article was kept for further reading, if it was a) written in English, 2) concerned the COVID-19 crisis, 3) examined the crisis from the school leaders' perspectives, 4) was scientific in its approach and 5) concerned CM in the context of education. In further reading, the relevance of the articles was assessed in terms of holistic school safety, based on the researchers' understanding and prior knowledge. The main criterion was that the article provides relevant information on the measures, procedures, best practices or problems related to CM in schools during 2020, when CM measures were just taking their shape.

### **Data description**

The articles included ( $N=10$ ; Table 1) were mostly qualitative studies, notwithstanding one survey-based study (4; the number of the study in question is presented here in parentheses). The national contexts of the studies were United States (3, 5, 9), United Kingdom (2), New Zealand (10), Barbados and Canada (7), Australia (4), Norway (6), Sweden (1) and global (8). The articles investigated educational management and administrative measures during the early months of COVID-19 crisis on primary, secondary and university levels.

**Table 1** List of included articles to narrative review

	Author(s) & year	Title	Data description (N), The time-frame of study focus
1	Ahlström, Leo, Norqvist & Poromaa-Insling (2020)	School Leadership as (Un)usual. Insights from Principals in Sweden During a Pandemic	Experiences from principals, reliable media and survey with open questions to Swedish principal training program students (N=361), <i>Spring 2020</i>
2	Beauchamp, Hulme, Hamilton & Harvey (2021)	“People miss people”: A study of school leadership and management in the four nations of the United Kingdom in the early stage of the COVID-19 pandemic	Interviews of UK principals (N=12), <i>May-June 2020</i>
3	Brian and Kiral (2021)	COVID-19 Crisis Challenges and Management Strategies of Educational Leaders in America	Interviews of US educational leaders (N=30), <i>March-May 2020</i>
4	Flack et al. (2021)	Principal perspectives on the impact of COVID-19: Pathways toward equity in Australian schools	Online survey to Australian principals (N=456), <i>year 2020</i>
5	Hayes et al. (2021)	“Constant Communication”: Rural Principals’ Leadership Practices During a Global Pandemic	Interviews of rural area principals in USA (N=10), <i>April-August 2020</i>
6	Lien et al. (2022)	School Principals’ Experiences and Learning from the COVID-19 Pandemic in Norway	Interviews of Norwegian primary school principals (N=15), <i>Autumn 2020</i>
7	Marshall et al. (2020)	Crisis Leadership: A Critical Examination of Educational Leadership in Higher Education in the Midst of the COVID-19 Pandemic	Critical examination of educational leadership during COVID-19 crisis in Barbados and Canada (n/a), <i>Initial phase of Covid-crisis</i>
8	McLeod and Dulsky (2021)	Resilience, Reorientation, and Reinvention: School Leadership During the Early Months of the COVID-19 Pandemic	Interviews of principals and school leadership personnel globally (N=55), “ <i>Early months of global pandemic</i> ”
9	Reyes-Guerra et al. (2021)	Confronting a Compound Crisis: The School Principal’s Role During Initial Phase of the COVID-19 Pandemic	Interviews of US principals (N=9), <i>Interviews examined the participants’ experiences in March-June 2020</i>
10	Thornton (2021)	Leading through COVID-19: New Zealand secondary principals describe their reality	Interviews of New Zealand secondary principals (N=18), <i>Spring 2020</i>

## Analysis

The analysis focused on identifying those crisis management measures taken by school leaders that were relevant to maintaining overall school safety at a time when the acute crisis challenged basic functions of a school unit. The main results of each study (Table 1) were collected and included into the set of data, and subsequently put into a table format for further processing to recognise measures of school leaders during the COVID-19 crisis. The results were simplified before tabling and verified in relation to the original text. The measures of CM by school leaders in COVID-19 crisis were identified from the tabulated results. The measures were classified thematically (Kiger & Varpio, 2020) and clustered into four different categories: (1) running the organization, (2) maintaining of teachers’ ability to work, (3) supporting students,

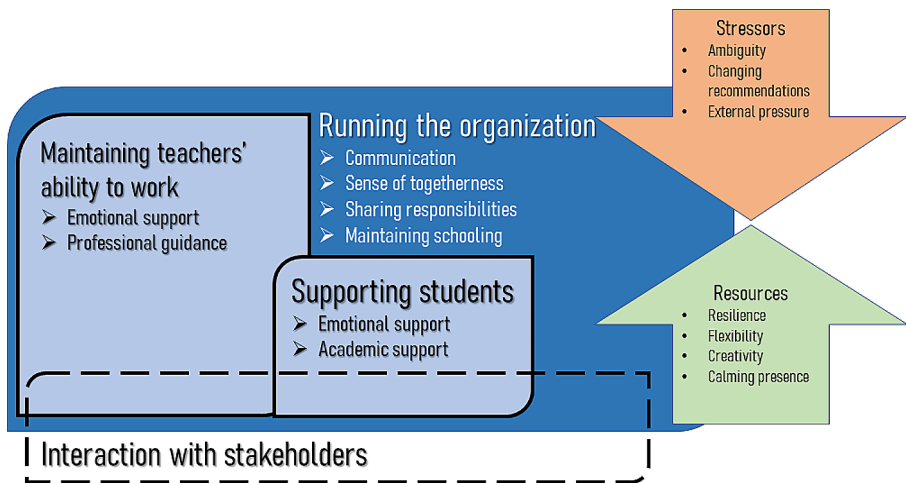
and (4) interacting with stakeholders. Beside these measures, two categories describing contextual crisis situation during COVID-19, the stressors and resources, were also formed.

## Measures of crisis management in COVID-19 to maintain holistic school safety

School leaders' major concerns during the COVID-19 crisis can be described as running the school organization, maintaining teachers' ability to work and supporting students. Interaction with external stakeholders, such as parents, health-care authorities, school policy authorities and other regional authorities revealed its importance during this societal crisis. All these measures of CM by school leaders are seen as meaningful measures to maintain the physical, psychological, social and pedagogical safety of school units at a time when basic school functions were disrupted by the crisis. Figure 1 below illustrates and summarizes the result of this review. These areas are further described in the following sections.

### Stressors and resources during crisis

The COVID-19 crisis was something the modern world had not faced for a notable period of time. During the early months of pandemic in 2020, some countries had no clear national guidelines or uniformity in instructing schools to either remain open or turn to online learning (Ahlström et al., 2020). The ambiguity caused by the uncertainty and the constantly changing recommendations for schools forced school leaders to make decisions without the support they would have needed. This led school leaders to experience great external pressure. (Lien et al., 2022; Ahlström et al., 2020.) Planning day-to-day work was possible only in the short term, and deci-



**Fig. 1** School leaders' measures of crisis management in the COVID-19 crisis to maintain overall school safety

sions were frequently retracted or modified (Marshall et al., 2020; Brion & Kiral, 2021). A constant state of uncertainty required resilience (Beauchamp et al., 2021); bending the rules and shifting priorities became a common way to deal with the crisis (Reyes-Guerra et al., 2021).

The resources that were a source of strength in dealing with the crisis included balancing the mental burden. Schools with a higher level of trust and a positive school climate were found to be more resilient against the effects of the crisis (Ahlström et al., 2020). To meet the requirements of constant uncertainty, a flexible and creative way to find solutions promoted decision-making and relieved stress (Reyes-Guerra et al., 2021). Demonstrating grace and equity in leadership signalled an ethos of ethical and caring management (Brior & Kiral, 2021). School leaders took on the role of caretakers in the community by providing a constant and calming presence (Hayes et al., 2021).

### Running a school organization

*An organization* is understood here as a whole that includes people and the organizations' administrative tasks. When an organization is threatened by a crisis, it requires effort on behalf of the school leaders to sustain the basic functions. The tasks of organizations during the COVID-19 crisis are described below.

*Communication* during a crisis was found to be the most helpful leadership skill (Flack et al., 2021), and is the most commonly highlighted task in the CM literature. Communication had to be frequent, transparent, open and clear to provide up-to-date information for teachers, students and the external school community (Brion & Kiral, 2021; Lien et al., 2022; Marshall et al., 2020; McLeod & Dulsky, 2021; Thornton, 2021). The lockdown during the pandemic forced school leaders to use a variety of ways to effectively communicate with others on a daily basis. Here, online systems proved particularly helpful (Brion & Kiral, 2021; McLeod & Dulsky, 2021; Reyes-Guerra et al., 2021). Communication no longer served instrumental purposes. In this new context, the spirit, tone and importance of communication grew. Communication served to keep communities together, and it helped staff to support each other, students, and parents (Beauchamp et al., 2021). The school leaders' communication also showed stakeholders that the school leaders valued them (Marshall et al., 2020). Communication was a vital task of CM during the COVID-19 lockdown on all levels of the organization.

To successfully run an organization during a crisis, building and maintaining a *sense of togetherness* was an important task of the school leader. The school leader needed to make themselves an integral part of the organization and to ensure that all members of the organization felt included. This sense of togetherness as a school leaders' task is understood as fostering a positive school climate, strong relationships within the organization and maintaining a high level of trust. A majority of the Australian school leaders in the study by Flack et al. (2021) reported stronger relationships with teachers, families and students due to the lockdown. During the COVID-19 crisis, national governments gave strong recommendations, which schools, teachers and students followed. Trust was needed on every level in following these recommendations, and schools with a high level of trust faced the uncertain times of crisis

with greater resilience (Ahlström et al., 2020). School leaders found creative ways of boosting community members' sense of belonging, such as celebrating birthdays and graduations online. In the context of the COVID-19 crisis, when face-to-face contacts were few, creating and maintaining a sense of togetherness required a lot of extra work and creativity, but was nevertheless necessary to maintain good relationships among the organization. Providing a calm, positive and hopeful presence during a crisis was an important factor in increasing a community's resilience (Hayes et al., 2021). The most notable "silver-lining" in the pandemic was a collective recognition of the power of a community, and how important it is to listen whole school community (McLeod & Dulsky, 2021).

*Sharing responsibilities*, or a collaborative approach to leadership, was a common feature of CM among school leaders, and its importance in CM is widely highlighted in the literature. Responsibilities were distributed to teachers and staff (Thornton, 2021). Schools as organizations contained a notable amount of in-house expertise, which needed to be harnessed in the crisis. The structures of leadership were flattened to enable teachers to participate in the decision making with their specific knowledge and ideas, and to delegate school leaders' responsibilities (Beauchamp et al., 2021; Marshall et al., 2020). The COVID-19 crisis showed that school leaders did not possess all the necessary skills and information in the fast-moving and complex situation. In-house expertise was used to solve problems that school leaders alone could not, or did not have time to (Reyes-Guerra et al., 2021).

*Maintaining schooling* and the basic functions of the school were under threat in the crisis. In the context of COVID-19, access to internet and mobile devices became critical to schooling. During home schooling, however, it was common that internet bandwidth was not strong enough for several devices to be connected simultaneously. Not all parents had the necessary skills to use the devices their children would have needed for school, and schools also had to teach a number of students the basics of a new way of schooling. (McLeod & Dulsky, 2021; Brior & Kiral, 2021; Thornton, 2021.) The communication problems between home and school were more common among students from families of low socio-economic status and who lived in remote areas (Flack et al., 2021; Hayes et al., 2021.) School leaders considered it a high priority to fix this problem (Flack et al., 2021). Another problem that surfaced after schools closed was a lack of a daily meal for students. School leaders worked with teachers and stakeholders to offer a lunch for students (Hayes et al., 2021; Brion & Kiral, 2021). The work towards providing access to devices and a daily meal have been described by McLeod and Dulsky (2021) as equity-oriented leadership and a task for school leaders.

### **Maintaining teachers' ability to work**

Supporting teachers and staff consisted of two main tasks: providing emotional support and professional guidance. The teachers and other staff of the schools are a sizeable group, and looking after their ability to work required a lot of effort from school leaders during crisis. Teachers' mental wellbeing and ability to work was a point of critical importance.

*Emotional support* was required under the uncertain circumstances of the crisis. The school leaders saw the negative impact that the crisis had on teachers' mental health, socio-emotional health and work-life balance (Flack et al., 2021). School leaders took on the role of caretakers for teachers, and also paid closer attention to teachers' symptoms of burnout, which were caused by the stress related to the uncertainty (Hayes et al., 2021). During the crisis it was important to listen teachers using various communication channels to relieve their stress caused by the sudden shift to teaching remotely (Brion & Kiral, 2021; Lien et al., 2022). This was a difficult task to do, because school leaders experienced problems in reaching out and addressing the teachers during lockdown (Lien et al., 2022). The absences among staff were 40% higher than under normal conditions (Ahlström et al., 2020). The school leaders posed themselves as the facilitators of wellbeing, and utilized external advisors, such as pastoral care, to carry out this task (Thornton, 2021). McLeod and Dulsky (2021) also note that school leaders made it a high-priority task to take care of teachers' wellbeing during the crisis.

*Professional guidance* was needed when schooling transitioned online. Teachers prepared a lot of material into new formats of teaching. This significantly increased their workload. This giant leap to a new form of digital schooling meant teachers required a lot of support from the school leaders (Lien et al., 2022). Learning online also created a new problematic situation, where school leaders no longer met with teachers on a daily basis, nor teachers with students. From the point of CM, school leaders had to set clear expectations for teachers work to keep things running (Brion & Kiral, 2021). The role of school leaders was to ensure that education continues, so clear direction had to be established (Marshall et al., 2020). Teachers working from home offices suffered from the lack of regulated working hours, which now stretched to late afternoons and evenings. School leaders regulated teachers' stress by setting a clear limit to teachers' work hours per day. (Lien et al., 2022.)

## Supporting students

Alongside teachers, students had a stressful time during crisis because of the lack of social relationships, emotional anxiety and lack of academic support. Although teachers were the primary supporters, working closely with students, school leaders also were frequently in contact with students and concerned for their wellbeing.

*Emotional support* was required to maintain the wellbeing of students, because COVID-19 caused students to experience a lot of emotional pressure and anxiety, which school leaders considered a high-priority cause for concern (Ahlström et al., 2020; McLeod & Dulsky, 2021). Well-being was even prioritized over learning, which was seen in the school leaders' empathy towards students (Thornton, 2021). The early stages of COVID-19 pushed school leaders to prioritize the care, safety and well-being of students, as well as the broader community (Reyes-Guerra et al., 2021). The onset of crisis increased the need for social and emotional support among students and their families. Principals struggled to uphold a connection with students. (Hayes et al., 2021.)

*Academic support* for students decreased significantly due to the lack of interaction between students and teachers. During the school closure, a general concern

among school leaders was the learning of the most vulnerable students. This included large group of students who normally benefitted from the formal structure of schooling, or who needed individually designed teaching, such as students with immigrant backgrounds, or with lower socio-economic status. (Ahlström et al., 2020; Flack et al., 2021.)

### Interaction with stakeholders

A major stakeholder group in the crisis were families. Families felt anxious and were in need of support just like the students (Ahlström et al., 2020). Close co-operation even brought schools and families closer together (Flack et al., 2012; McLeod & Dulskey, 2021). The crisis also had a reverse side of the coin. Many stakeholders approached school leaders with various questions which stemmed from a rapid change in schooling and uncertainty that was common to all (Marshall et al., 2020). Amid the rapid changes, encouraging all those affected by the crisis to embrace change and to endure the uncertainty became crucial for school leaders (Marshall et al., 2020). A common way to support managing schools in the crisis was fostering inter-school connections and collaboration. School leaders used both formal and informal relationships with other school leaders and school directors to navigate the crisis. (Reyes-Guerra et al., 2021.) In summary, in addition to in-school communication, external communication and co-operation with all stakeholders became crucial when dealing with the crisis and the fast-paced changes (Beauchamp et al., 2012; Brior & Kiral, 2021; Flack et al., 2021; Hayes et al., 2021; McLeod & Dulskey, 2021).

### Discussion

School safety is studied and discussed in various ways and in different cultural contexts (Tanner & McKelvey, 2019; Srichai et al., 2015). However, the COVID-19 pandemic was a crisis met by schools globally. In retrospect, it appears that schools' level of preparedness for the highly infectious disease was not as high as it might have been (Ramos et al., 2022). The crisis required school leaders to implement the crisis management (CM) measures to provide a safe learning and working environment for the school community (e.g. Chatzipanagiotou & Katsarou, 2023). By posing the question of what crisis management measures did school leaders took to response COVID-19 crisis during 2020 to uphold school safety, and what were the stressors and resources of school leaders when dealing with unpredicted crisis, this review combines new knowledge of the measures used by school leaders as taking care of the organization, teachers, students and stakeholders during a crisis to uphold holistic school safety. The threat to physical safety was obvious, and extensive measures were taken to reduce social contacts (e.g. Chatzipanagiotou & Katsarou, 2023). The lack of normal social interaction in the school community increased workloads and the unavailability of necessary support caused mental stress for teachers and students. (Okilwa & Barnett, 2021; Schiller et al., 2023). Teachers suffered also decreased collegiality in time of crisis, when collegial support would be even more important (Schiller et al., 2023).

As seen, the reduction of social contacts posed a new threat to holistic school safety, for which solutions had to be found reactively (e.g. Mutongoza et al., 2021). Maintaining teachers' ability to work during a stressful time, as well as students' ability to continue their studies and receive the necessary support for learning became essential measure of the school leaders when upholding school safety (see Fig. 1). School leaders need to pay attention to teachers as well while focusing on students' development. Overall, this led to a situation where a focus on one aspect of safety led to its' weakening in other areas of holistic school safety. In retrospect, it can be assessed that there were shortfalls in proactive safety management.

Crises affecting schools are many, and some of them are more likely to actualize depending on various circumstances and environments of schools (e.g. Striepe & Cunningham, 2022). Crisis preparation plans should always be based on a holistic and collective analysis of an individual school (Elbedour et al., 2021). This review suggests that all dimensions of school safety should be considered. It may not be enough to consider preventing primary threats in any crisis context, although it need to be prioritised. The rapid measures taken at school to maintain safety focused on the physical dimension of safety by locking down. Preventing social contacts among people decreased the risk of infection in the school environment, but simultaneously it created a new problematic situation related to social, psychological and pedagogical safety, which challenged leaders to execute their various tasks.

Maintaining teachers' ability to work and organizing emotional and academic support for students presupposes a human approach during a crisis. Running an organization includes ongoing decision-making on communication, sense of togetherness, sharing responsibilities and maintaining schooling. It also involves keeping in contact with stakeholders (Fig. 1). In executing CM measures, leaders should implement clear, timely and constant communication, and to solve problems innovatively they should find creative solutions to adapt to the crisis at hand. For school practice this can serve as a frame to describe and develop CM through CM tasks. This new framing may be useful in SM and CM leadership training and pre- and in-service training of administrators. By implementing knowledge within the operational environments of schools, the threats for school safety can be predicted and prepared for to a large extent. Nonetheless, as the global COVID-19 crisis demonstrated, not all scenarios can be foreseen. In future crises, considering various consequences is important when preparing plans and considering leaders' tasks.

The COVID-19 crisis provided many lessons with respect to SM and CM in school contexts in the form of taken measures during COVID-19 crisis (see Peltola et al., 2023). As McLeod and Dulsky (2021) state, "we cannot unlearn what we are learning right now." In the future, it is important to develop our understanding of crisis preparedness and SM of schools on a wide spectrum, and further deepen our understanding of what makes schools holistically safe learning and working environments. Additionally, to develop holistic school safety in the future, different crisis contexts should be investigated from the point of SM. As Pursiainen (2017) states, preparation for crises is an ongoing process, where a triggering event just turns the preparation phase to an in-crisis-process. Our review can advance this process in the future.

## Limitations

The research design of this review has its limitations. Despite of careful and detailed use of the narrative review method (Ferrari, 2015), the findings may not cover knowledge of CM exhaustively during the COVID-19 crisis and some information or points of view may have been left outside its scope. This was an intentional choice, made to understand the acute crisis stage when schools faced this authentic situation. Simultaneously, the knowledge gained from experiencing COVID-19 CM in schools cannot be distilled from the data at hand. Considering the data of the review, nine out of ten reviewed studies were peer-reviewed, while one (Flack et al., 2021) was published by a private Australian company. This study was nonetheless included due to its relevance related to the research topic. In addition, a lack of quantitative data in the included articles might influence on generalizability of this review. On the other hand, we can say that a point of saturation was reached in the data in relation to the CM measures of COVID-19 during 2020. In context of first year of the crisis, the measures, stressors and resources seem to be a quite similar regardless of national contexts of the school (Table 1). We are pleased to find that the data coherently supports the results of the analysis despite the number of studies included or the short window of time which the studies focused on.

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## Authors and Affiliations

Jussi-Pekka Peltola<sup>1</sup>  · Eila Lindfors<sup>1</sup>  · Emilia Luukka<sup>2</sup> 

✉ Jussi-Pekka Peltola  
jpspel@utu.fi

Eila Lindfors  
eila.lindfors@utu.fi

Emilia Luukka  
emilia.luukka@utu.fi

<sup>1</sup> Department of Teacher Education, University of Turku, Rauma Campus, Turku, Finland

<sup>2</sup> Department of Teacher Education, University of Tampere & University of Turku, Turku, Finland