Responding Together

Supporting evidence

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Early Childhood Australia
A voice for young children

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National Youth Mental Health Foundation

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Supporting evidence for the Be You Professional Learning

Responding Together domain

This review has been developed to support the Responding Together domain of Be You Professional Learning. It provides an overview of the research and evidence underpinning each of the learning modules and allows you to further engage with the key themes and advice.

Critical incidents happen in every learning environment, but how educators prepare for and respond to such incidents is key to managing the impact they can have on children, young people and the wider learning community. This review looks at the evidence around strategies that have been effective in helping educators in schools and early learning services support mental wellbeing in response to critical incidents.

Educators will best engage with this review if read in conjunction with the Professional Learning modules in the Responding Together domain.

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Executive summary

Background

Critical incidents in the learning community can have immediate and potentially long-term impacts on the mental health and wellbeing of children and young people. Critical incidents are sudden and unexpected events outside the range of usual experience that can cause a perceived threat to life, loss of control, and possible feelings of emotional or physical loss.

This report describes and discusses the methods and findings of a review of the evidence addressing the following question: *What strategies have been effective in helping educators in schools and early learning services support mental wellbeing in response to critical incidents?*

Summary of methods

A rapid evidence assessment methodology was used to answer the review question. This involved searching for studies in three academic databases and on eight organisation websites in July 2019. All studies were screened against pre-determined selection criteria. The search was limited to the year 2014 onwards, to the English language and to select countries. Identified strategies associated with preparing for and responding to critical incidents were organised into themes. Studies were rated for level of evidence and the overall state of the evidence was assessed.

Key findings

Twelve studies were included in this review. Several strategies for responding to incidents were identified in the studies, which were organised into 10 themes (see box 1).

Box 1. Strategy themes arising from included studies.

1. Plan, plan, plan – develop, practice, review and revise plans everyone is confident with
2. Adopt a learning culture – train, educate, evaluate and learn
3. Adopt a supportive school culture – embed mental health supports in schools
4. Leadership – provide strong leadership at all stages of critical incidents
5. Collaboration and community – collaborate with groups and people; engage community
6. Stay connected – ensure contact with students and families; communicate effectively
7. Get back to life as usual – resume school routines as soon as possible
8. Provide support – focus on emotional supports, rather than formal education
9. Expect the unexpected – plan for various outcomes but incidents are unpredictable
10. Check in – check how everyone is going; now, and down the track.

Gaps in the evidence

A notable gap in the reviewed evidence was the lack of high-quality studies that reported outcomes and used quantitative measures. In general, there appears to be limited evaluation in the area of critical incidents in education and early learning settings. Other gaps included:

- No studies from the United Kingdom (UK)
- No studies were found pertaining to specific populations, such as Aboriginal and Torres Strait Islander families
- Limited information relevant to the early childhood years
- No studies on childcare settings
- Most studies were natural disasters, with few other types of incidents researched.

Discussion of key findings

Education settings, early learning environments and childcare play a key role in the development of children and young people and are central within our communities. When a critical incident occurs in the learning community or in the broader community, educators have an inevitable and important place in supporting the mental health and wellbeing of children and young people. Knowledge of effective planning and response to critical incidents will help educators to better support mental health outcomes.

In general, there has been limited, high-quality evaluation in this area, however this review provides some guidance regarding strategies that might be incorporated into plans and used in response to a critical incident.

This review identified several strategies for supporting mental health and wellbeing of children and young people in education settings. Planning well, collaboration in planning, and training and practice in plans, were common themes in the studies in this review.

Collaboration, for example within schools and between schools, families and community agencies, was an important strategy in many ways because it helped ensure input, support, information, help, buy-in and reflection from key stakeholders during planning and in response to incidents.

Connection, support and checking-in following incidents were important features of addressing wellbeing and recovery. Consideration should be given to educator skills and debriefing where this level of support is needed for students and families.

One often-described strategy that educators used to help students was to provide some normalcy and stability of routine by resuming business as usual, to whatever degree was possible, within the learning setting.

Different responses may be required for different types of incidents, with consideration given to the developmental stage of children and young people.

Conclusion

This review identified studies into supporting mental wellbeing in response to critical incidents in education settings. This report summarises key strategy themes that, while not well-evidenced, appear to have applicability for use by educators in the Australian context. Further research is needed to get a better understanding of the immediate benefits and long-term outcomes of these and other strategies for use by educators. This review, however, provides some indications of the types of approaches that may be useful in planning and responding to critical incidents and supporting the mental health and wellbeing of children and young people in Australian education settings.

Background

Overview

In 2018, Beyond Blue, in partnership with the Australian Government, launched a national education initiative called 'Be You'. Be You is a multi-component, whole school and early learning service initiative that aims to transform Australia's approach to supporting children and young people's mental health.

To support the Be You initiative, a series of systematic reviews were conducted to summarise the latest research evidence relating to key components of the initiative. Be You has five learning domains for professionals, and Responding Together is the subject of this report. Responding Together aims to help educators recognise the potential impact of critical incidents and to respond collaboratively to critical incidents. (1) The vision is to engender a whole-community response and minimise impact of critical incidents on the mental health and wellbeing in learning communities.

This report describes and discusses the methods and findings of a review of the evidence that was conducted to help inform the content of the Be You Responding Together professional learning.

Mental health and wellbeing of children and young people

Based on The World Health Organization's (WHOs) definition, Be You describes mental health and wellbeing as positive concepts relating to "enjoyment of life, an ability to cope with stress and sadness, fulfilment of goals and potential, and a sense of connection to others". (2)

The term, 'social and emotional wellbeing' is an alternative term used to understand and discuss mental health, encompassing "a whole-of-life approach to the physical, social, emotional and cultural wellbeing of the community". (2) This term is preferred by many Aboriginal and Torres Strait Islander people as it is a more holistic view of mental health. (2)

In 2015, researchers examined data from 41 studies on mental disorders affecting children and adolescents (6-18 years) and estimated the worldwide prevalence of mental disorders to be 13.4%. (3) In Australia, the Australian Child and Adolescent Survey of Mental Health and Wellbeing (known as the Young Minds Matter Survey) found that around one in seven (13.9%) of 4–17 year-olds, or 560,000 children and young people, had at least one mental health disorder in the last 12 months. (4) In general, children and young people of Aboriginal and Torres Strait Islander backgrounds are exposed to a greater number of risk factors from a younger age and experience disproportionately higher rates of mental health problems. (5)

Mental health problems affecting children typically include externalising problems such as attention deficit hyperactivity disorder and aggression, and internalising problems such as anxiety and depression. Children and young people may experience more than one mental disorder within the same time period. (4, 6)

It is believed that a large proportion of mental illness develops from cumulative effects of negative experiences over time, where the risk of mental illness increases with increased risk exposure. (7) Risks factors for children can be grouped into child, family and community aspects. (8) Child risk factors include Indigenous identification, physical health, neurological vulnerability, and personality features. Family risks include parenting practices, socioeconomic status, parental mental health and partner conflict. Lastly, community risks include neighbourhood disadvantage, poverty and social isolation. (6, 8)

Mental health disorders that develop during childhood may have serious long-lasting impacts on the health and wellbeing of the individual and on the lives of those around them, including potential intergenerational consequences. (9-11) Adverse outcomes of children's mental health problems can include learning difficulties, reduced occupational opportunity, increased risk of delinquency, substance misuse, family conflict and homelessness, and can result in significant service costs to society. (11, 12) There is also strong evidence that many adult psychological problems have their origins in childhood and adolescence. (9-11) Additionally, long-term physical effects of toxic stress can be seen with increased incidences of heart disease, diabetes, hypertension and other physical ailments. (13, 14)

Experiencing critical incidents such as disasters and distressing events can affect the social and emotional wellbeing of children and young people, where the event can be disturbing enough to overwhelm a person's coping capacity. (15) When the usual coping capacity of a learning community is overwhelmed, the incident becomes critical. (15) Indirect exposure to critical incidents through the media and social media can also cause children and young people to feel threatened and learning communities will also need to determine an appropriate response to these events. (15)

Critical incidents

Critical incidents in the learning community can have immediate and potentially long-term impacts on the mental health and wellbeing of children and young people. A critical incident can be defined as a sudden and unexpected event outside the range of usual experience which can cause a perceived threat to life, loss of control, and possible feelings of emotional or physical loss. (15) From a learning community perspective, critical incidents can occur within and externally to the workplace, and may involve children and young people, educators, families and others close to them. (15) There is a potential for a wide network of people being affected by a critical incident, particularly if people within the learning community are directly involved. (15)

Critical incidents range from natural threats such as a bushfire, to non-natural threats such as a hostage situation.

For example:

- The death, suicide, or terminal illness of a child or young person, current or former staff member, family or associated community member
- Accident or serious injury of someone in the learning community
- Exposure to self-harming in the learning environment
- Natural or other disasters

- A fire or explosion, major destruction of property, bomb threats, chemical or gas hazards in the learning environment or community
- The disappearance of a child, young person or staff member, a hostage situation or abduction
- Serious assault of someone in the school community.

The impact of critical incidents on children and young people

Because children and young people are undergoing rapid physical, mental and social development, they are at particular risk from critical incidents. (16) They are also more vulnerable to post-disaster psychological illness and are also more severely impacted by disaster events than adults. (16-18) Impacts of critical incidents can be psychological (including clinginess in younger children, anxiety, depression and post-traumatic stress disorder (PTSD)), biological (for example the activation of neuroendocrine stress response systems, which with prolonged stimulation can lead to complications), and physical (such as fractures and gastrointestinal aliments). (16-19)

An Australian study examined academic scores of children in bushfire-affected primary schools at two and four years after the event. The study found that bushfires could disrupt children's learning up to four years after the incident. Results of the study showed that in numeracy and reading, expected score improvements from Year 3 to Year 5 were less in schools exposed to higher levels of bushfire impact. (20)

A qualitative study after the Hazelwood Mine Fire Event in 2014 in which a fire burned in the Victorian coal mine for 45 days blanketing surrounding areas in thick, acrid smoke, concluded the fire impacted the learning and wellbeing of students, and the wellbeing of teaching and school staff. Students experienced heightened anxiety, and the disruption to school routines impacted on the students' learning. Students also experienced increased stress, frustration and violence at home, suggesting the event also affected students' home environment. Increased staff workloads following the incident reduced the school's ability to provide trauma-informed care. (21)

In the US, young people in grades 4 to 8 who had been exposed to Hurricane Katrina in 2005 were screened for post-traumatic stress disorder (PTSD) symptoms at 24 month and 30 months after the disaster. They showed constantly high symptoms over time and exhibited similar or higher rates than earlier assessments in this and other studies of young people exposed to Hurricane Katrina. (22)

In a study on the effects of a school shooting in Finland, psychological outcomes of young people were collected four months after the incident. Results showed half of the females and a third of the males exposed to the incident suffered post-traumatic distress, and 27% of females and 7% of males had levels high enough to predict PTSD. Psychiatric disturbance was also observed in 42% of females and 16% of males. (23)

A US study examined California Department of Education data over a three-year period during which time there had been seven deadly school shooting in seven school districts. To assess the impact school shootings have on student performance and school function, researchers compared school records for high schools in which there had been fatal shootings to schools in the same district without shootings. Findings suggested the shootings significantly decreased students' scores in English and maths, and reduced enrolment of students at entry level. (24)

Lastly, a review of six studies on school barricaded captive-taking[1] found that both direct and indirect victims experience multiple trauma symptoms, including mental health problems such as PTSD, acute

[1] This refers to situations in educational settings where people are taken captive and although response and rescue teams may know where the captives are, they are unable to access them (barricaded). The

stress disorder, depression and anxiety. Studies indicated young children expressed symptoms such as bed wetting and nightmares, whereas older children exhibited increased acting out behaviours. (25)

Aims

This review aims to support the Responding Together domain of Be You Professional Learning. It provides an overview of the evidence that can be used by schools and early learning services to support educators to respond to critical incidents. This review addresses the following question:

What strategies have been effective in helping educators in schools and early learning services support mental wellbeing in response to critical incidents?

Methods

The researchers used a rapid evidence assessment methodology to answer the review question. Rapid evidence assessments are streamlined versions of full systematic reviews that allow synthesis of evidence in an area within a shorter timeframe than is possible with a systematic review. (26) Rapid evidence assessments follow similar methods to a systematic review (rigorous systematic search, impartial inclusion decisions, and transparent and replicable method) however they apply limits to the process to reduce the cost and time involved in systematic reviews.

The review involved a search for relevant studies in three academic databases and on eight organisation websites in July 2019. All studies were screened against pre-determined selection criteria to capture evaluations of preparedness or responses to critical incidents in childcare and education settings. The search was limited to: the year 2014 onwards; to the English language; and to evaluations from Australia, the United States (US), the United Kingdom (UK), Canada, and New Zealand.

Key data regarding included studies were extracted, and strategies for preparing for and responding to critical incidents were organised according to themes. Findings were synthesised in narrative. Studies were rated for level of evidence and the overall state of the evidence was assessed. Refer to Appendix 1 for further details on methods.

Findings

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authors describe these situations as different from hostage situations as the captives are not held for bargaining purposes.

Twelve papers were eligible for inclusion in this review. The flow of study selection in the review and a table with key study information are reported in Appendix 2. One of 12 papers was an Australian-specific systematic review (27) and the rest were single studies. There was one further Australian paper on the Hazelwood mine fire and resulting smoke event (21), and the remaining papers were from the US (n = 6), one from Canada and the US, one from Canada only and two from New Zealand.

Seven studies reported on response, impact and recovery of incidents. (21, 28-33) Three were more general, reporting on planning, rather than a specific event. (34-36) One paper evaluated a training program. (37)

In the following section, we summarise the *strategies* identified in the included papers. Strategies are drawn from various sources including study participants (educators, students, parents) and from study author conclusions or recommendations. Some of the strategies were reported to have been used and others were suggested for use based on learnings during incidents.

What strategies *may be useful for* educators in schools and early learning services support mental wellbeing in response to critical incidents?

Strategies were gathered from the 12 included studies. Evidence regarding their effectiveness is not confirmed (see section of assessment of quality of evidence), therefore, these are strategies that *may be useful*, rather than strategies that are effective. Strategies were grouped into 10 themes, outlined in Table 1 and described below.

Table 1. Strategy themes arising from the analysis of studies on critical incidents.

Strategy theme	Description
Plan, plan, plan	Work together to develop a plan that all members of the learning community feel confident with. Practice the plan, review, reflect and revise as you go – make it a living plan.
Adopt a learning culture	Ensure education and training is of a high quality and regularly updated. Practice on the use of crisis plans is essential. Evaluate and learn from training, crisis plans, interventions, and all stages of incident preparedness and response.
Adopt a supportive school culture	Embed supportive structures, processes and relationships in everyday school life. Draw on these during times of crisis.
Leadership	Administrators and principals provide critical leadership to the learning community at all stages of critical incidents.
Collaboration and community	Collaborate closely with relevant organisations and people across the learning community and more broadly when preparing for and responding to an incident. Formalise and authorise collaborations and agreements with community organisations and professionals. Ensure consultation with educators and the community at all levels of planning. Involve students and parents in response and recovery efforts.

Stay connected	Ensure suitable avenues for connecting promptly with students and families. Communicate in timely, regular and honest ways to ensure understanding of incident and engender trust.
Get back to life as usual	Support the learning community to return to usual school routines as soon as possible to provide normalcy and stability.
Provide support	Provide immediate crisis team response starting with those closest to the crisis and then moving out to the periphery. Focus on communication and emotional support with students, rather than prioritising education. Offer a range of age-appropriate supports, including: individual and group; peer mentoring; sharing stories and singing; formal and informal interventions; and skills building approaches.
Expect the unexpected	Plan for various contingencies but know that incidents are unpredictable. Have back-up arrangements or multiple options for arrangements such as key roles, evacuation points and methods for communication. And be mindful of the possibility of technology breakdown.
Check in	Check on students, staff and family members to see to their mental health and wellbeing during the crisis and in the months and years that follow.

Plan, plan, plan

Plans are important, but it is even more important that there is community buy-in to plans and knowledge of the plans, and that they are revised and updated as needed. The collaboration, connection, leadership, and support strategies described below all contribute to this.

It is important to create and maintain disaster plans (34) and adjust them as the situation requires (30). Plans need to be well-developed and comprehensive (36), so learning communities need to ensure good collaboration with relevant community services and agencies. The process of joint planning can help create and sustain partnerships. (34)

In the moment, the plan needs to be clear in people's minds (where to go, what to do), (36) which requires practice and prior good communication. Plans should clearly specify roles and relationships. (34)

Feeling prepared to implement a plan helps staff feel ready to handle a crisis and being involved in crisis planning means staff feel confident in the plan. (36)

Adopt a learning culture

Good practices for fostering a learning culture also apply to education regarding disaster response plans. The evidence suggests that disaster education programs should be well taught (27), using training facilitators established as knowledgeable and engaging. (37) Educator training should be as practical, experiential, and real-world as possible, with useful materials and opportunity to practise skills that have been learnt. (37) Training should be undertaken by all relevant personnel. (35)

When training is in response to an event that has already occurred, it can be just-in-time (for example preparing for students' return to school) (28); however investing in long-term knowledge and capacity building can be preferable to time-limited programs. (29)

Staff can be trained in reassurance techniques, mental health interventions such as relaxation skills, and how to recognise and refer students for mental health problems (28), all of which may be beneficial in a broader context than that of disaster response. Crisis education and recovery can be integrated into the classroom, for example through stories, art, writing, plays, and games. (33)

Regardless of the kind of response plan, the findings suggest there should be regular opportunities to practise it, as just having a plan is not enough. Plans are particularly ineffective if staff have not even read them. (35) Plans should be practised at least once per year. (36)

The use of response plans in schools needs to be better understood. Research is needed to understand what programs are being run (27) and how effective they are (27), and to draw on lessons learnt from past incidents to better prepare for future events. (30)

Adopt a supportive school culture

Schools with a generally well-established supportive culture seem to respond well to critical incidents. Existing supportive school values can be drawn on during times of crisis, providing a foundation for how the school community works together and relates to each other. For example, during an accident resulting in a student's sudden death, one school relied on their strong, established internal communications and support structures to quickly set up clear messaging and varied levels of support across the school community. (30)

Another study described the benefits of schools drawing on aspects of an existing trauma-informed approach to education during the Hazelwood Mine fire event. (21) Pillars such as emotional and behavioural regulation and building attachment were shown to be helpful post-event.

Leadership

School leadership can play an important role in crises, to guide students, families, and the wider community. Leadership can be important for training and preparation in advance of critical incidents. Personnel look to leaders to set an example and support others in learning and preparedness. (35) A study on responses to earthquakes in New Zealand found that school principals play a particularly key role in leadership when there is a crisis. (33) The principal in this situation noted that the whole school community looked to them for guidance in the earthquake. They said it was important to take a moment to be calm, in control, and prepare their words because students, educators and families relied on their leadership.

Collaboration and community

Part of the school response strategy may be to form partnerships with community agencies such as fire authorities and police, and specify these agreements as parts of response plans throughout different stages of the incident. (34) These work best when state or federal authorities mandate their formation (34), but educators and members of the crisis team should also be involved in plan development. (36) Any plans should be established and practised across the entire learning community. (35)

Good community connections mean that students can be involved in helping restore the school and community (for example through mentoring, remediation works, planning), and parents can be recruited to identify children who may be in greatest need. (28)

Findings suggest that disaster education programs work best when there is a high degree of local control (27), and when multidisciplinary teams link school and community-based services. (29)

Stay connected

Staying connected in the lead-up to or following a critical incident can help reduce uncertainty and increase trust. It is important to have systems in place to contact students and families (21, 31) and to take timely action to inform people about the crisis to avoid uncertainty as far as possible. (30) The findings support being honest with students to engender trust, including being honest about not knowing if the incident will happen again if that is the case. (31)

In the immediate aftermath of an incident, if there has been widespread disruption of services and communications, recruiting students to help locate staff and other students via social media can be more effective than staff using more traditional methods. (28)

Get back to life as usual

Following the critical incident, an important response is to return to life as usual and typical school routines as quickly as possible. (31) This was reported to be a priority goal but was hindered in situations where the school was destroyed, damaged or unsafe following an incident such as a wildfire (33) or earthquake. (31) One paper suggested that resuming school as soon as possible would be aided if emergency preparations included plans for an alternate site for school. (21) These authors described the importance of re-establishing school engagement and attendance, stable routines and communications to support students following the Hazelwood mine fire in Victoria.

Following the New Zealand earthquakes, getting back to usual school routines was said to be a distraction from what was going on in the rest of the community. (31) Another study identified that reopening and resuming schools as quickly as possible allows for a rapid response and coordination of services to the school community. It provides a reassuring environment in which to identify and respond to children's needs. (28) Returning to the school routines as soon as possible following Canadian wildfires was reported to be important for establishing normalcy and enhancing students' sense of safety. (33)

Provide support

Support can be provided in different ways and at different stages of the response to a critical incident. In the immediate aftermath, learning communities need to ensure crisis team response and counselling to all involved, starting with those closest to the critical event (assuming it is local and limited, such as a single injury or death within a school) and then moving out to those on the periphery of the crisis. (30)

One-on-one support and teaching is useful for the duration of any disruption (for example, while the school is relocated). (21) Peer support and mentoring is also helpful—this may be planned, or arise incidentally from other elements of the response such as sharing stories. (31)

Whole classroom interventions for wellbeing and recovery can reach the largest number of children (33) and can include activities such as drawing pictures (31) and daily singing used for fun and participation rather than music education. (32)

In the longer term, findings suggest it is important to focus on communication and emotional support for students, rather than prioritising academic education. (30, 33)

The school culture can support opportunities to increase students' emotional and behavioural self-regulation skills and schools with a trauma-informed approach have a headstart on this. (21) Building students' coping strategies (33) can have benefits beyond the critical incident and its immediate aftermath.

Expect the unexpected

Preparations made well in advance of any critical incident (whether anticipated or unanticipated) are all of benefit. So, for example, planning alternative locations to meet or to hold classes after an incident (21, 31) would reduce confusion and uncertainty in the incident aftermath. Setting up systems for contacting people on multiple phones and networks, having expanded emergency contact lists for students (up to six people), and planning for paper-based communication if power and phone networks are down (31) are all of assistance. For natural disasters, it is useful to have emergency kits ready with items such as paper, water, non-perishable foods that don't need cooking, extra mobile phones, money, games for children, warm clothes and blankets, and torches. (31)

Check in

It's important to monitor how students are faring in the months and years following a critical incident, the research suggests. The study involving students at the specialist school impacted by the Hazelwood mine fire noted that it was critical to monitor student behaviour, while also looking for opportunities to support the development of further emotional and behavioural regulation skills. (21) Recommendations following the Canadian wildfire were to observe students and screen students to identify those with the greatest concerns. (33) One study on responses to New Zealand earthquakes highlighted the need to check in with students and families regularly regarding their physical and emotional needs. (31)

Assessment of quality of evidence

We rated the evidence for each of the studies using the NHMRC levels of evidence (see Appendix 1, Table 4 for NHMRC table and Appendix 2 Table 6 for ratings applied to each study). We found that all of the single studies (n = 11) were rated at level IV. Level IV is defined as a 'case series with either post-test or pre-test/post-test outcomes', however many of the studies were only post-test, qualitative, and reported limited outcomes.

For some studies, the methods used were acceptable given the study aims. For example, impact of training assessed using pre-post measure of knowledge and attitude change (37); impact of incidents assessed using post only qualitative and quantitative measures. (33) Some post-incident studies relied on case studies in-depth qualitative analysis (21, 30), however there was scope for inclusion of mixed methods involving quantitative outcomes measures, to compliment the rich qualitative data.

In general, the studies lacked valid measures of outcomes; be they student, educator, family or community outcomes. Most studies relied on qualitative data about experiences, not quantitative, objective measures of impact or quantitative measures to assess the success of incident plan implementation. One systematic review was included in this review (27), however the studies included were descriptive and policy or curriculum analysis designs.

While the quality of the evidence base was poor due to methodological limitations, the findings, conclusions and recommendations were generally consistent, generalisable and applicable (see Table 2).

Table 2. NHMRC Matrix to summarise the evidence base.

Component	A	B	C	D
	Excellent	Good	Satisfactory	Poor
Evidence base[A]	Several level I or II studies with low risk of bias	One or two level II studies with low risk of bias or a systematic review or multiple level III studies with low risk of bias	Level III studies with low risk of bias, or level I or II studies with moderate risk of bias	Level IV studies, or level I to III studies with high risk of bias
Consistency[B]	All studies consistent	Most studies consistent and inconsistency may be explained	Some inconsistency reflecting genuine uncertainty around clinical question	Evidence is inconsistent
Clinical impact	Very large	Substantial	Moderate	Slight or restricted
Generalisability	Population/s studied in body of evidence are the same as the target population in question	Population/s studied in the body of evidence are similar to the target population in question	Population/s studied in body of evidence differ to target population in question but it is clinically sensible to apply this evidence to target population	Population/s studied in body of evidence differ to target population and hard to judge whether it is sensible to generalize to target population
Applicability	Directly applicable to Australian context	Applicable to Australian context with few caveats	Probably applicable to Australian context with some caveats	Not applicable to Australian context

Gaps in the evidence

A notable gap in the reviewed evidence was the lack of high-quality studies that reported outcomes and used quantitative measures. In general, there appears to be limited evaluation in the area of crucial incidents in education and early learning settings.

The scope of this review was limited to select countries, but no studies were identified that were conducted in countries in the UK. No eligible papers on bushfires in Australia were found, although there has been some research into the planning and response to bushfires following the devastating Black Saturday bushfires in Victoria in 2009. No studies were found pertaining to specific populations, such as Aboriginal and Torres Strait Islander families. There was limited information relevant to the early childhood years and no studies set in childcare settings.

From the studies included in this review, we noted limited information on responses to events, as opposed to reactions and recovery. There were also a limited number of formal programs evaluated and little information was reported about those. In terms of incident type, most were natural disasters, plus one accidental death and an industrial disaster. There were no studies related to school-based assaults or violence, or death due to illness.

Discussion

Education settings, including early learning services and schools, play a key role in children and young people's development and are central to elements in our communities. When a critical incident occurs in the learning community or in the broader community, educators have an inevitable and important role in supporting the mental health and wellbeing of children and young people. Knowledge of effective planning and response to critical incidents will help educators to better support mental health outcomes.

Planning well, collaboration in planning, and training and practice in plans were common themes in the studies included in this review. Without suitable planning that can be drawn on effectively by all people involved in incidents, particularly principals and crisis teams, responses to critical incidents are unlikely to proceed well or result in desirable outcomes.

Collaboration within learning environments and between schools and families and community agencies was an important strategy in many ways because it helped ensure input, support, information, help, buy-in and reflection from key stakeholders during planning and in response to incidents.

Connection, support and checking-in following incidents were important features of addressing wellbeing and recovery and could be approached in various ways across the long post-incident period, the review found. Consideration needs to be given to support for educator skill development when providing this individual- or family-level support for people experiencing trauma following a critical incident. Monitoring and dealing with triggers, active and reflective listening, expressing empathy, open-ended questioning, and affirmation are some of the skills that may warrant additional focus in educator training. Debriefing will be vital for educators who are connecting on this level with members of the learning community.

One often described strategy that educators used to help students was to provide some normalcy and stability of routine by resuming business as usual, to whatever degree was possible, within the learning setting. The routines of school, early learning settings and childcare are good for the mental health of children and young people as they provide structure and are predictable, especially following a time of unpredictability and instability. For older students, additional approaches may be needed to accompany resumption of routines. For example, adolescents may require information and discussion sessions that are developmentally suited to their needs.

One paper (30) approached the study of critical incidents using a conceptual framework that may be a 'practical way of thinking about school crisis management' (p. 270). The study described crisis management in one school according to a *dynamic crisis life cycle model*, with the following crisis stages:

- Prodromal crisis stage – the crisis warning stage (if there is warning)
- Acute crisis stage – intensive period, there may be no school at this time or no chance of recovery without loss
- Chronic crisis stage – clean up and damage control stage

- Resolution stage – recovery period, where there can be learning and preparation for the future

It may be useful to approach planning of critical incidents with these stages in mind; that is, consider what response may be required at each point along the continuum. The reviewers suggest there is an additional stage *prior* to the Prodromal crisis stage, which appears to be the stage to prepare for a crisis when there has been a warning (e.g., bushfire warning). While not included in the model described above, there is also a pre-crisis stage where planning occurs for future stages in the event that a critical incident may occur. This stage may in fact loop back to the Resolution stage of past incidents, where applicable, to ensure there is a cycle of reflection and learning from past events in any pre-crisis planning.

Part of educator training and preparedness for critical incidents could include reflection on any past incidents in the community, or even more broadly. For example, if planning for a flood, perhaps reflection could include critical thinking of their past experiences with incidents as well as investigation of flood responses in other flood-prone areas. Training and other preparedness processes may benefit from considering incident planning in a staged model; acknowledging that educators may require different practices at different points in crises.

Certainly, even without adoption of a model such as this, it is critical to consider planning at all stages along the continuum of a critical incidents and to ensure plans are practised and implemented well in the event of an incident. This review provides some guidance regarding strategies that might be incorporated into plans and used in response to a critical incident. Many strategies outlined here have the potential to be useful across all stages of crisis planning. It is worth noting that workforce development may be required to support educators in planning, training and adoption of plans. Policies and endorsement or authorisation may facilitate these processes.

This review found that responses varied according to the incident. For example, the response to the sudden death of a student was different to the response to an earthquake, where schools were destroyed and whole communities were impacted. This suggests that planning and response models may require adaptation to specific types of incidents. Consideration should also be given to age group. For example, risk of suicide in young people is unlikely to be an issue in early learning settings.

One step in pre-crisis planning could involve mapping out potential types of critical incidents from a developmental perspective, and then identifying the appropriate responses. This information could also be mapped against the crisis life cycle model, combining stages of crisis with type of incident and developmental stage. This may also help to identify gaps in knowledge and resources across the incident and response map.

This review identified some gaps in the recent evidence for effective strategies for educators in supporting the wellbeing of students in response to critical incidents. In general, there has been limited, high-quality evaluation in this area. As a result, there is uncertainty regarding whether the identified strategies have been effective, but likewise none have been found to be ineffective. And while there may be uncertainty about the effectiveness of the strategies arising from these studies, the review findings provide the best advice based on available evidence regarding what may be suitable and useful in the Australian context. Certainly, all of the strategies are easily generalisable and quite applicable for use in Australia.

Conclusion

This review identified recent evidence on ways that educators in schools and early learning services can support mental health and wellbeing in response to critical incidents. The review summarised key strategy themes that, while not well-evidenced, appear to be applicable for use by educators in the Australian context. Suitable strategies include the development of good, well-practised plans, with strong collaboration, communication and connection along the journey before, during and following a critical incident. While planning is critical, those involved in incidents need to be prepared for the unexpected and be flexible in their response as situations change. This requires review and reflection and highlights the need for ongoing engagement and practice with plans. Evaluation and learning play a key role here, as educators can gain insight from past experiences and from other informants to better plan for and respond to critical incidents in the future.

One of the most important roles educators play in an incident is to provide support, rather than education, to children and young people and their families. In a school setting, getting back to usual school life may be an important factor in supporting students' mental health and wellbeing.

Further research is needed to gain a better understanding of the immediate benefits and long-term outcomes of these and other strategies for use by educators. This review, however, provides some indication of the types of approaches that may be useful in planning and responding to critical incidents and supporting the mental health and wellbeing of children and young people in Australian education settings.

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Appendices

Appendix 1. Methods

Search strategy

The researchers searched academic databases and organisation websites for evaluations of strategies for helping educators in schools, early learning services and childcare support mental wellbeing in response to critical incidents.

The following academic databases were searched:

- Education Resources Information Center (ERIC)
- Cumulative Index to Nursing and Allied Health (CINAHL)
- Education Research Complete.

The terms used for academic databases are listed in box 2.

Box 2. Search terms used in the review.

1) Pre-school* or preschool* or "early learning" or "early education" or kinder* or "primary school*" or "grade school*" or "elementary school*" or "middle school*" or "secondary school*" or "high school*" or "junior high" or "senior high" or school* or "nursery school*" or prep* or foundation* or "child care" or childcare or "day care" or daycare or "occasional care" or (out-of-school-hours N1 (care or program*)) or ("out of school hours" N1 (care or program*)) or (out-of-school N1 (care or program*)) or "out of school" N1 (care or program*)) or "after school care" or "after school hours" or "before school care" or "before school hours" or "after school program*" or "before school program*" or "holiday program*" or "holiday care" or "vacation care" or "vacation program*" or creche or nursery
2) "critical incident*" or incident* or disaster* or "natural disaster*" or emergency or emergencies or "traumatic event" or crisis or crises or "mass casualty incident*" or terrorism or "terror* attack*" or terrorist* or violence or fire* or bushfire* or "bush fire*" or "forest fire*" or cyclone* or tornado* or hurricane* or flood* or "terminal illness*" or "critical illness*" or death* or shoot* or shot or die* or dead or bomb* or bomb threat* or tsunami* or earthquake* or snowstorm* or storm* or volcano* or wildfire* or brushfire* or blizzard* or mudslide* or landslide* or epidemic* or pandemic* or evacuation* or hazard* or chemical* or windstorm* or duststorm* or threat* or lockdown* or "amber alert*" or abduction*
3) intervention* or strateg* or "crisis intervention*" or "early intervention" or "school-based intervention*" or "community response*" or response* or relief or plan* or preparation* or prepared or preparedness or "action plan*" or respond* or aid* or manage* or "operation* plan*" or readi*
4) randomi* or random* control* or RCT or "clinical trial*" or "control group*" or "evaluation stud*" or "study design" or double-blind or placebo or meta-anal* or "meta anal*" or metaanal* or "systematic review*" or econometric or "propensity score matching" or Heckman* or "instrumental variable*" or "natural experiment" or Bayesian or "comparison group*" or "treat* group*" or "wait* list*" or wait*-list* or "control* condition*" or quasi-ex* or quasiex* or evaluation* or "case control*" or case-control* or "cross sectional" or cross-sectional or "case study" or "case studies" or "synthesis of studies" or "study synthesis" or evaluation* or studies or study or research or investigation* or trial* or "statistical* significan*" or pilot* or longitudinal or prospective or retrospective or "cohort stud*" or "cohort analys*" or "population study"

	or "population studies" or "systematic synthesis" or "systematic syntheses" or "realist synthesis" or "realist review*" or overview* or "umbrella review*" or "review* of review*"
5)	5. 1 and 2 and 3 and 4

To locate additional published and unpublished papers (grey literature), the researchers searched eight key organisation websites. Where available, search functions were used on these websites or titles in publication, and report lists were searched. A list of sites searched appears in Table 3.

Table 3. Websites searched for additional published and unpublished papers (grey literature).

Country	Organisation	Website
Australia	Beyond Blue	www.beyondblue.org.au/
	Australian Institute of Family Studies (AIFS)	https://aifs.gov.au/
	Bushfire and Natural Hazards CRC	www.bnhcrc.com.au/
New Zealand	Massey University for Joint Disaster Research	www.massey.ac.nz/massey/explore/departments/joint-centre-disaster-research/joint-centre-disaster-research_home.cfm
UK	Department for Education	www.gov.uk/government/organisations/department-for-education
US	American Institutes for Research, National Center on Safe Supportive Learning Environments	https://safesupportivelearning.ed.gov/
	Federal Emergency Management Agency (FEMA)	www.fema.gov/children-and-disasters
Canada	Canadian Risks and Hazards Network	www.crhnet.ca/

Study selection

All database search results were entered into Endnote reference management library and screened for inclusion in the review against pre-determined selection criteria.

Potential papers from websites were initially screened online. Any reasonably suitable papers were downloaded to Endnote for closer scrutiny and to determine eligibility.

Once stored in Endnote, all studies were screened against the following selection criteria:

Inclusion Criteria

- Studies published from 2014 (inclusive)
- Evaluations of preparedness and responses to critical incidents in education and childcare settings
- Childcare defined as all sorts of care including centre-based, long-day care, occasional care, family day-care, out-of-school hours care
- Education defined as kindergarten, preschool, primary, secondary schools
- Preparedness or responses provides support for children, young people and educators
- Interventions or strategies are designed to improve or address mental health and wellbeing
- Any study design was eligible for inclusion
- Evaluations were from Australia, the UK, Canada, New Zealand, the US.

Exclusion Criteria

- Interventions or strategies related solely to young people and adults over the age of 18
- Individual clinical interventions such as psychological de-briefing
- Suicide postvention
- School violence prevention programs
- Tertiary school settings
- Interventions or strategies solely targeted at mental health and wellbeing outcomes of parents
- Interventions or strategies that have not been evaluated
- Other countries outside the inclusion scope
- Any documents that were not available online
- Documents pre-dating 2014

Data extraction and analysis

Key data regarding included studies were extracted and strategies for preparing for and responding to critical incidents were organised according to themes as they emerged from the evidence. Findings were synthesised in narrative. Studies were rated for level of evidence using the NHMRC levels of evidence (Table 4) and the overall state of the evidence was assessed using the NHMRC matrix to summarise the evidence base (Table 5).

Table 4. NHMRC Levels of evidence.

Level of Evidence	Study Design
I	A systematic review of Level II studies
II	A randomised controlled trial
III-1	A pseudo-randomised controlled trial (i.e., alternate allocation or some other method)

III-2	A comparative study with concurrent controls (i.e. non-randomised experimental trials, cohort studies, case-control studies, interrupted time series studies with a control group)
III-3	A comparative study without concurrent controls (i.e. historical control study, two or more single arm studies, interrupted time series studies without a parallel control group)
IV	Case series with either post-test or pre-test/post-test outcomes

Table 5. NHMRC matrix to summarise the evidence base.

Component	A	B	C	D
	Excellent	Good	Satisfactory	Poor
Evidence base[A]	Several level I or II studies with low risk of bias	One or two level II studies with low risk of bias or a systematic review or multiple Level III studies with low risk of bias	Level III studies with low risk of bias, or level I or II studies with moderate risk of bias	Level IV studies, or level I to III studies with high risk of bias
Consistency[B]	All studies consistent	Most studies consistent and inconsistency may be explained	Some inconsistency reflecting genuine uncertainty around clinical question	Evidence is inconsistent
Clinical impact	Very large	Substantial	Moderate	Slight or restricted
Generalisability	Population/s studied in body of evidence are the same as the target population in question	Population/s studied in the body of evidence are similar to the target population in question	Population/s studied in body of evidence differ to target population in question but it is clinically sensible to apply this evidence to target population	Population/s studied in body of evidence differ to target population and hard to judge whether it is sensible to generalize to target population

Applicability	Directly applicable to Australian context	Applicable to Australian context with few caveats	Probably applicable to Australian context with some caveats	Not applicable to Australian context

A Level of evidence determined from the NHMRC evidence hierarchy as in Table 1.

B If there is only one study, rank this component as 'not applicable'.

National Health and Medical Research Council (2009) *NHMRC levels of evidence and grades for recommendations for guideline developers*. Canberra: National Health and Medical Research Council. Available from: https://www.nhmrc.gov.au/_files_nhmrc/file/guidelines/developers/nhmrc_levels_grades_evidence_120423.pdf

Limitations of the methodology

Although this review employed some systematic methods for searching for and screening studies, it was not as comprehensive as a full systemic review. Searches were limited to the English language, studies dated 2014 onwards and studies available online. Only studies from select countries were eligible for inclusion. The researchers did not contact authors for additional studies or data and a detailed analysis of the bias and quality of studies was not undertaken.

Appendix 2. Findings

The flow of papers through the study selection process can be seen in Figure 1 below.

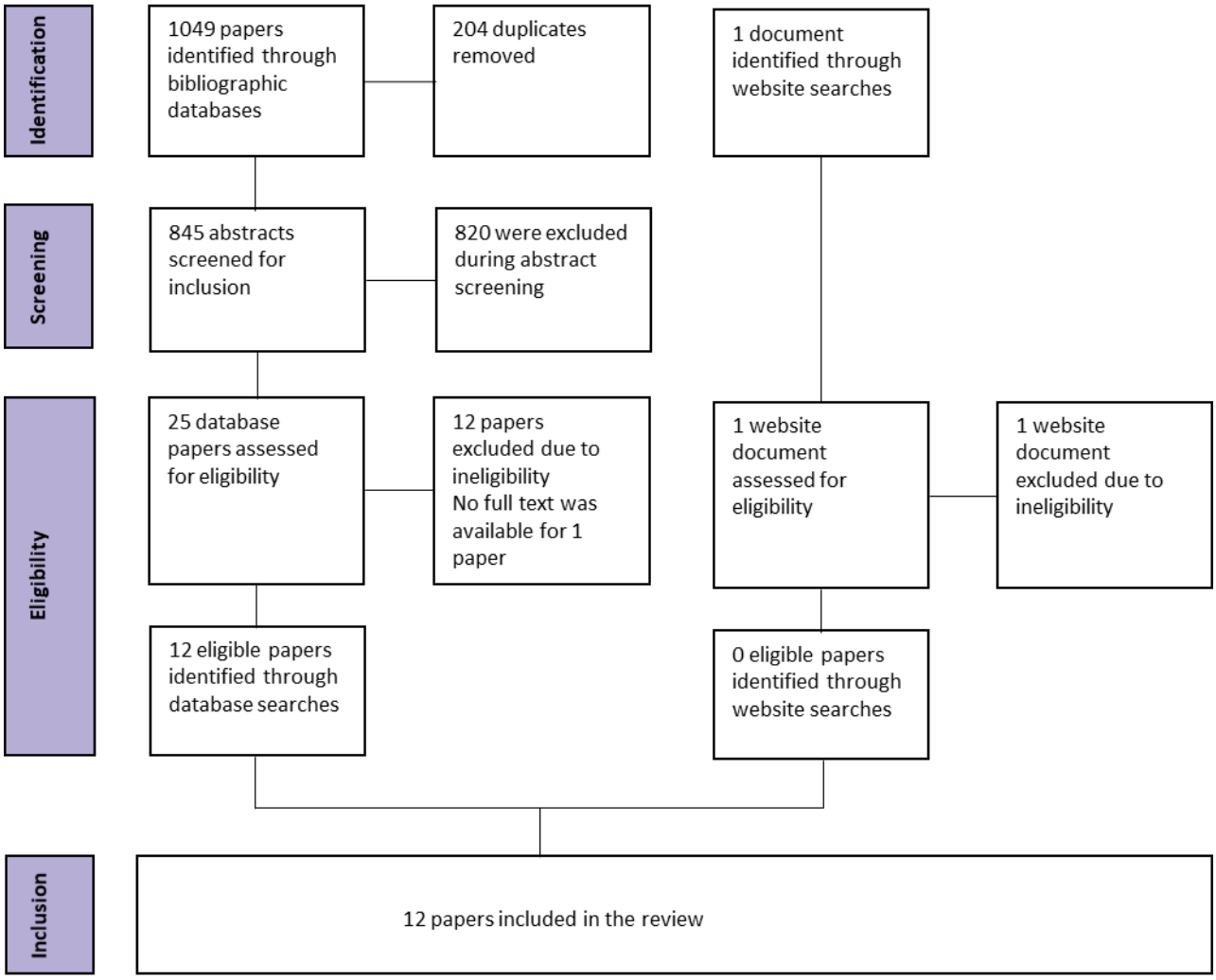

Figure 1. Flowchart of papers through the study selection process

Table 6. Studies included in the review.

Study Country Incident	Learning community Population	Response	Findings Author recommendations	Strategies	Level of evidence Study design
Berger, Carroll, Mayberry, and Harrison, (2018) (21) Australia Hazelwood mine fire/smoke event	Specialist secondary school Teachers at a school for young people aged 12-18 years who have stopped attending or been excluded from mainstream education due to traumatic, behavioural, emotional, learning, and/or family and relationship challenges	The school practices a trauma-informed educational model which focuses on enhancing students' stress regulation skills, repairing their disrupted attachments, and increasing their psychological resources for post-traumatic grown. • Trauma-informed model (in place before critical incident) • Access to outdoors (a sports oval) • One-on-one support and teaching • Consideration of students' individual needs and home circumstances • Maintaining school attendance and engagement • Maintaining usual school routines and communication/debriefing practices • Focusing on students' ability to cope.	• Have a system in place to contact students and families • Have a plan for alternate locations for school • Adopt trauma-informed approaches as standard educational practice • Monitor student behaviour • Maintain stable routines • Maintain school engagement • Look for opportunities to increase students' emotional and behavioural self-regulatory skills	• Have a system in place to contact students and families • Have a plan for alternate locations for school • Adopt trauma-informed approaches as standard educational practice • Monitor student behaviour • Maintain stable routines and communication/debriefing practices • Maintain school engagement and attendance • Look for opportunities to increase students' emotional and behavioural self-regulatory skills • Provide one-on-one support and teaching • Consider students' individual needs and home circumstances	IV Case study and rigorous grounded theory qualitative analyses
Boon and Pagliano (2014)	Schools	• Research suggests teaching and learning of hazards and disasters is present in each	• Children and youth are vulnerable to disasters occurring in their local region,	• Qualitative research with school and disaster personnel needed to understand what	Systematic reviews of randomised

Study Country Incident	Learning community Population	Response	Findings Author recommendations	Strategies	Level of evidence Study design
(27) Australia Review (3 studies) of disaster programs run in Australian schools		state and territory's curriculum frameworks • Research has not been updated in light of National Curriculum changes • Research has not been conducted to determine program effectiveness to increase knowledge and awareness in children or encourage disaster preparedness.	but these regions are rarely involved in school decision making at the local, state, or federal level and have little to no influence over the school curriculum. • This may lead to a sense of apathy towards material included in disaster education programs; or even increase rather than reduce student anxiety. (The authors note that no such adverse events were reported, but that children exposed to disaster information in the media subsequently believe they are more vulnerable to such events than is statistically likely). • Formal program evaluation is needed to ensure disaster education programs do not have adverse effects. • Research from other countries supports the benefits that may arise from successfully delivering disaster risk reduction programs to children, but this needs to be	programs are being run, by whom, and whether formal or informal evaluation is being undertaken • Increasing local control over disaster education programs may reduce child and youth apathy • Ensuring disaster education programs are well taught will reduce risk of adverse effects (increased fear and anxiety) in children • Evaluation is needed to determine whether programs administered in schools are effective	controlled trials are rated level I. This systematic review was not limited to rigorous study designs and so could not be rated level I, however other rating categories were not applicable.

Study Country Incident	Learning community Population	Response	Findings Author recommendations	Strategies	Level of evidence Study design
			confirmed in the Australian context.		
Jones (2018) (34) US General disaster response	Private and public schools in a single US state Teachers, school administrators, and emergency management personnel completed survey and interviews	No single, specific response. Asked school and emergency management personnel about best practice in school-community partnerships.	No specific findings other than the strategies listed in adjacent column.	• School-community partnerships work best when state or federal authorities mandate that they be formed • Involve community agencies such as fire and police authorities in creating and sustaining partnerships • Include partners with roles in emergency management before, during, and after an incident. • Create and maintain disaster plans • Specify interagency agreements as part of the plan • Specify roles and relationships clearly	IV Post-only survey, qualitative

Kantor and Abramson (2013) (28)
US
Tornado
	Private and public schools in a single US state
	Teachers, school psychologists and guidance counsellors, a principal, public health officials,
		Schools implemented:
		• An immediate response based on locating students and families, identifying needs, and coordinating services
		• A later response consisting of teacher training on classroom techniques and identifying and
			• Students were successfully involved in immediate tracking of students and families via social media—more successfully than staff using more traditional methods
			• Conflicting classroom priorities can arise when some children want to talk repeatedly and
				• Resume school services as soon as possible to:
				  ○ provide a safe and reassuring environment
				  ○ identify children's needs
				  ○ coordinate services
				• Locate and contact students and staff as soon as possible;
					IV
					Case study with interviews

Study Country Incident	Learning community Population	Response	Findings Author recommendations	Strategies	Level of evidence Study design

	and physicians completed interviews	referring more severely affected students	frequently about the traumatic events they witnessed while others want to avoid the topic
			Key elements of response:
			• Reopen schools rapidly to provide and coordinate services
			• Contact displaced families rapidly
			• Involve experts to promote mental health
			• Use just-in-time training of school staff
			• Refer children with higher needs to community providers.
				recruit students using social media into this effort
				• Train staff in:
				  ○ techniques for reassurance
				  ○ practical classroom mental health interventions such as relaxation exercises
				  ○ how to recognise and refer students with more severe mental health disorders.
				• Contact parents to identify children needing more assistance
				• Use just-in-time training to prepare teachers for returning students	

Lee, Danna and Walker (2017) (29) US Hurricane	Current and past school-based mental health providers	The Classroom-Community Consultation (C^3) connected service providers to resources in their community. Multidisciplinary teams examined cases in weekly and then monthly meetings, then triaged them to evidence-based interventions.	The nature of C^3 evolved over time to meet changing requirements. Linking school-based and community-based services can • Reduce feelings of isolation in service providers • Increase ability to gather crucial information on students • Enhance the knowledge and capacity of individual providers	• Use multidisciplinary teams meeting regularly to link school-based and community-based services • Invest in individual providers through enhancing long-term knowledge and capacity, rather than investing in time-limited programs	IV Structured interviews

Study Country Incident	Learning community Population	Response	Findings Author recommendations	Strategies	Level of evidence Study design
Liou (2015) (30) US Accidental death of a student on school grounds (another student threw a discus which hit the student)	PK-12 school Teachers and principals were interviewed. This school with 300 students was selected for study as it was known to have good crises responses. Reported to be 80% white students, 25% students receiving free or reduced-price lunch.	• Principal quickly gathered information about the accident • Assembled crises team for meeting • Crisis team sought to stop spreading panic and misinformation by preparing statement and communicating with learning community	General findings • Crisis was completely unexpected (no warning signs) • Principal did not foresee the risk of having no fencing around discus area until after the incident, and addressed this after the fact • Early after the incident, the principal recognised the risk of the spread of misinformation and prepared written statements for community and media and was the nominated spokesperson (although this action was not part of their crisis management plan- they were responsive to the need) • School staff shifted their primary role from educators and coaches to communicators and emotional supports • The supportive structure helped mitigate instability, panic and uncertainty after the crisis	• Take timely action to inform people about the crises to avoid uncertainty • Focus on communication and emotional support with students • Adjust your emergency plans as the situation requires • Draw on existing school values (in this case internal communication, supportive culture) • Provide immediate crisis team response and counselling to all involved – starting with those closest to the crisis and then moving out to periphery (i.e., family of student who was killed, then student who threw the discus and their family, then other teams and students and staff nearby, then broader school) • Draw on lessons learnt (debrief, reflect) from past incidents (e.g. to detect risks, prepare better)	IV Case study and rigorous grounded theory qualitative analyses

Study Country Incident	Learning community Population	Response	Findings Author recommendations	Strategies	Level of evidence Study design
			• School provided support to students' families as well as students • School reflected on what went wrong and how things could have been done differently to prevent the incident Author recommendation: • Allow flexibility and adaptation • Collaborate to enable connectedness • Self-correcting mechanisms in crisis team		
Nickerson et al. (2014) (37) US and Canada No incident. This was a large-scale evaluation of crisis training program	Schools 3,689 educators participated in training	Training: PREPaRE SCHOOL CRISIS PREVENTION AND INTERVENTION TRAINING CURRICULUM. 'PREPaRE acronym stands for Prevent/Prepare for psychological trauma; Reaffirm physical health, security and safety; Evaluate psychological trauma; Provide interventions (and) Respond to psychological needs; and Examine the effectiveness of prevention and intervention efforts' (p.2) One-day workshop on preparedness and two-day workshop on response.	Quantitative results Significant pre-post changes in attitudes, knowledge and confidence regarding preparedness and response, and significantly reduced anxiety about crises preparation. Qualitative results Workshop strengths: • Presenter knowledge and enthusiasm • Participant approval of materials • Quality of handouts • Usefulness of materials • Role-plays	For training: • Make educator training as practical, experiential and real-world as possible • Use facilitators who are regarded as knowledgeable and engaging • Provide practice and useful materials	IV Pre- and post-training quantitative measures Post-qualitative measures No comparison group

Study Country Incident	Learning community Population	Response	Findings Author recommendations	Strategies	Level of evidence Study design
		Limited information provided regarding training content, but quite a lot of detail on the evaluation.	• Real-world examples • Opportunities for interaction Ways to improve workshops: • More active learning and role-play • More real-world examples Knowledge/skills developed: • ability to plan/prepare for crises • knowledge roles/responsibilities of the Incident Command System • ability to create school crisis plan • ability to triage • feeling better prepared for crises • knowledge of psychoeducational interventions		
O'Connor and Takahashi (2014) (31) New Zealand Earthquake (also describes compound disaster in	Primary schools 5 diverse schools – different in terms of socio-economic status and ethnicity	Not described Students, teachers and principals discussed their reactions to incidents, their learnings regarding preparedness, and their recovery.	General findings • Educators put the students first in response and recovery • The shared experience made schools, families and community closer • Principals were keen to get back to school straight away but were not able to re-enter	• Principals take leadership role – take a moment to be calm, in control and prepare your words because students and families look to you • Have your plan clear in your mind – where to meet, what will happen	IV Case study regarding response and recovery rather than evaluation of a design and tested response.

Study Country Incident	Learning community Population	Response	Findings Author recommendations	Strategies	Level of evidence Study design

Japan, out of scope here)			the ground for three weeks due to safety concerns.
			• School provides a distraction from what is going on outside in the community
			• There was a sense of more time spent between teachers and students after the quake; more outside time, more playtime and more talking together
			• The remaining findings are listed as Strategies
			Author comments
			• Education and learning begin with love and care – exceed legal responsibilities and obligations to educate
			• Community consultation and planning are essential
			• Principals need leadership role in response
				• Have a second evacuation point
				• System for contacting families eg group SMS set up on multiple phones and networks
				• Up to six people on emergency contact list for students
				• Have emergency kits items readily available:
				  ○ paper for taking a roll in case computers are not working
				  ○ water and food (consider planning fruit trees, have food that doesn't need to be cooked
				  ○ extra mobile phones
				  ○ torches
				  ○ money
				  ○ games for entertaining children
				  ○ warm clothes
				• Peer support and mentoring, incidental and planned
				• Be honest with students, including honesty about not knowing if incident will happen again
					Post only, qualitative interviews

Study Country Incident	Learning community Population	Response	Findings Author recommendations	Strategies	Level of evidence Study design
				• Get back to usual routine as soon as possible – usual learning patterns • Share stories • Draw pictures • Check in with students and families regularly regarding physical and emotional needs	
Olinger Steeves et al. (2017) (35) US No incident identified. Describes preparedness in general.	Primary schools School administrators and 72 staff members from six schools were surveyed about crisis planning and preparedness and match to the PREPaRE model of crisis response.(see description of PREPaRE above)	Not applicable	• About half of the respondents had experienced a crisis at their school • Nearly all had at least one crisis-related training session in the last year, although only about two-thirds attended • Many knew the location of crisis plans at school but not all of those respondents had read the plan (particularly if they were non-teaching staff) • Several did not know what to do in the event of particular crises or whether they had a crisis team • The majority of respondents felt their school was well prepared • Fewer felt personally prepared	• Provide leadership regarding preparation for crisis • Ensure uptake of training • Allow regular opportunities to practice plans – just having a plan is not enough, particularly ineffective if personnel have not even read it • Collaboration across the learning community and district to establish and practice plans	IV Questionnaire about educators' views on preparedness. No assessment of effectiveness of preparations.

Study Country Incident	Learning community Population	Response	Findings Author recommendations	Strategies	Level of evidence Study design
			• Comparison to PREPaRE model: • All schools' plans included preparations for communication in crisis • Protocols for specific incidents were not covered in all plans, however some included additional information not in PREPaRE • All included core components such as accounting for students, evacuation sites • Recommendations from respondents • Over half suggested more crisis drills • Over one-third suggested more specific training • About one-quarter suggested more accessible plans Author suggestions: • It is the responsibility of individual educators to ensure their own preparedness • Administrators need to take a leadership role to support preparedness of staff/school		

Study Country Incident	Learning community Population	Response	Findings Author recommendations	Strategies	Level of evidence Study design
			and access to training and materials • Increased availability of training and opportunities to practice plans • Those working with schools, e.g., district psychologists, have a role to support district-wide adoption of best practice and development and implementation of suitable plans • School-based mental health staff can work with educators and the learning community more broadly to educate regarding mental health, to establish crisis teams and plans and set up training and drills • They can also establish mental health prevention programs and improve access to plans		
Rickson, Legg and Reynolds (2018) (32) New Zealand	Primary school Educators and learners from one school that formed from the	Daily collective singing following merging of the two schools post-earthquake	• Teachers believed singing would be good for students • Teachers were prepared to have a go at singing and see if it helped	• Use daily singing to promote wellbeing and recovery • Focus on having fun in singing rather than learning technical aspects of music	IV Action research. Post only, qualitative focus

Study Country Incident	Learning community Population	Response	Findings Author recommendations	Strategies	Level of evidence Study design
Earthquake	merger of two schools following earthquake		• Singing is 'motivating, equilising and accessible' (p. 66) • Teachers used available resources to support singing, e.g., YouTube • Students had autonomy and choice • Teachers were non-judgemental • Singing provided connection and sense of belonging • Group mood was considered in song choice • Learning for wellbeing is different from music education Author recommendations • To consider using music for wellbeing in schools, but without the pressure of learning music	• Use activities that everyone can be involved in • Provide an environment that is non-judgemental, does not pressure and supports participation	groups and interviews
Shepherd, Kulig and Botey (2017) (33) Canada Wildfires	Schools Students in grades 3-12 completed surveys. Some parents of children were also surveyed, as	Not described.	Themes from parent interviews: • Return to normal life was their goal • But there were changes in normal routines (e.g., due to no school)	Author's suggestions (not evaluated) • Return to school routine as soon as possible – re-establish normalcy and sense of safety • Provide school-based emotional support • Build coping strategies	IV Post only. Valid mental health and wellbeing measures with children and young people at 6 and 12 months

Study Country Incident	Learning community Population	Response	Findings Author recommendations	Strategies	Level of evidence Study design

	were other community members.		• Parents were stressed but thought their children appeared unaffected
			• Families felt stronger but there were concerns in the community
			• Families became closer but relationships with other community members felt strained
			• They experienced a change in values, what is more important to them
			• Child PTSD:
			  ○ rates of PTSD were generally low in children
			  ○ rates were higher in females, younger children, children that lost their homes
			• Community survey results:
			  ○ about half noted that children were having problems with behaviour, emotions or getting along with others
			  ○ two-thirds of children feared someone would die
				• Observe and assess children to screen those having greatest concerns
				• Whole classroom interventions can reach large numbers of children
				• Involve children in helping restore school and community (e.g., planting, mentoring, planning)
				• Integrate wildfire education or recovery into the classroom e.g., through stories, art, writing, plays, games
				• Offer psychoeducation, counselling and support groups for children and young people
					post fires.
					Qualitative and quantitative post measures with community members.
					Qualitative interviews with parents, post only.

Study Country Incident	Learning community Population	Response	Findings Author recommendations	Strategies	Level of evidence Study design
			and about half were afraid of injury ○ many parents thought their children felt helpless, confused and terrified • Recommendations arising from research: ○ provide mental health services for children and families for two years after disasters ○ assess family functioning and coping for at least six years after wildfires ○ provide resources and services for professionals e.g., counsellors and educators ○ offer free support to families regarding financial planning, recovery and decision-making ○ support families to talk to children about feelings, to provide factual information and to spend time together ○ provide opportunities for children and families to		

Study Country Incident	Learning community Population	Response	Findings Author recommendations	Strategies	Level of evidence Study design
			support each other and enjoy time together		
Werner (2015) (36) US No incident identified. Describes preparedness in general.	School 786 school social workers from various schools were surveyed about crises preparation and readiness	Not applicable	• Majority of social workers collaborated with school districts and crisis team to develop crisis plans • Most agreed that crisis plans were well-developed • About one-third were members of crisis teams • About one-quarter practised crisis plans each semester with the school • Social workers who practised crisis plans at least once a year were more likely to have higher levels of preparedness • Most social workers were prepared to implement crisis plans and felt ready should the need arise • Social workers with more years of experience were more likely to report feeling prepared • Those who felt prepared to implement a plan were also more likely to feel ready to handle a crisis	• Involve educators and members of crisis team in plan development • Ensure plan is well-developed and comprehensive • Practise the plan at least once a year	IV Questionnaire about social workers' views on preparedness. No assessment of effectiveness of preparations.

Study Country Incident	Learning community Population	Response	Findings Author recommendations	Strategies	Level of evidence Study design
			• Crisis plan knowledge and individual readiness were found to be associated with school preparedness • Crisis preparation was associated with individual feelings of preparedness • Involvement in crisis planning was associated with feelings of confidence in plan • Social workers felt prepared to implement plans if there were: involved in preparing it, felt it was well developed, practised it yearly, and were a member of the crisis team • Most social workers thought their school co-workers were ready to handle a crisis • The factors most associated with social workers viewing co-workers as ready to handle a crisis were if the plan had been practised and if they though the plan was well developed and comprehensive • The most important factors in perceived school and co-worker readiness were having		

Study Country Incident	Learning community Population	Response	Findings Author recommendations	Strategies	Level of evidence Study design
			a well-developed plan and practising it. Being involved in developing the plan was important to social workers' own feelings of readiness.		

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