RESEARCH-INFORMED APPROACHES TO SUPPORTING STUDENT WELLBEING POST-DISASTER

AUTHORS
Helen Cahill, Keren Shlezinger, Katherine Romei and Babak Dadvand

Youth Research Centre
Melbourne Graduate School of Education
The University of Melbourne

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At the Youth Research Centre we acknowledge the Australian Aboriginal and Torres Strait Islander peoples of this nation. We acknowledge the Traditional Owners of the lands on which our centre is located and where we conduct our research and teaching. We pay our respects to ancestors and Elders, past, present and future.

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This literature review provides an overview of research investigating the contributions that schools can make during periods of disaster relief and recovery. It highlights the importance of providing ongoing social and emotional learning interventions as part of a broad school-based response.

Schools are uniquely placed to provide a safe and supportive space and to support emotional and social recovery post disaster. They can provide psycho-educational support to assist both in the immediate aftermath, and as part of longer-term recovery efforts. Teachers are also well placed to notice and refer those in need of additional support, and to contribute to improving safety via disaster preparedness education.

Exposure to natural disasters can be traumatic and cause major disruptions to families and to their livelihoods. Rates of family violence, sexual violence and mental health problems typically increase in the post disaster period.

While most children and young people are resilient and recover well post disaster, some experience long-lasting mental health distress, including post-traumatic stress disorder, anxiety disorders and depression. Those who are most vulnerable prior to the impact of disaster tend also to be most vulnerable to its effects, as are those who have experienced heightened or prolonged exposure.
EXECUTIVE SUMMARY

Common reactions that children and young people have to disaster exposure include heightened anxiety even after the threat has gone, difficulty sleeping, difficulty concentrating on learning, problems with regulating behaviour and expressing emotions, challenges in managing frustration and conflict, anxiety about effects on their own and their family’s future, and difficulties in getting along with others.

It is important that schools provide ongoing social and emotional support, so as to cater for both short and long-term impacts on the mental health, wellbeing, social connection and learning of students exposed to disasters.

There is strong evidence that provision of longer-term school-based social and emotional learning programs help mitigate the mental health impacts of exposure to disaster. When provided prior to disaster, social and emotional learning programs also bolster students’ capacity to cope with trauma. Such programs are most effective when delivered in an ongoing manner by teachers with whom students have ongoing relationships.

There is also evidence that child-centric and strengths-based arts interventions provided by teachers or community artists working in close partnerships with schools can assist communities with recovery and social reintegration following a disaster. Teachers and schools are often first responders in disasters, and are adept at providing for immediate care, despite themselves also being impacted by the disaster.

However, teachers often feel under-equipped about how best to provide psycho-educative support in the immediate aftermath and via longer term recovery efforts. They need access to evidence-informed programs to guide their approaches, and to professional learning designed to advance their skills in providing such programs.

A number of evidence-informed programs are available open access to support schools in their provision of disaster prevention education and social and emotional learning. Advice is also available to guide teachers in good practices during the immediate aftermath. Along with provision of short-term specialised support in the immediate aftermath, schools can benefit from being made aware of existing teaching and wellbeing resources and services, and of the routine good practices they can continue to use with good effect in the post disaster period.
INTRODUCTION

Globally there is an increasing threat of natural disasters, which are expected to occur more often and with greater severity as a result of climate change [1]. In Australia, bushfires and other disasters are expected to increase over the coming years and to become a recurring event for those communities most vulnerable to high-risk conditions [1]. In 2019-2020 a series of catastrophic bushfires burnt across a large proportion of Australia’s south-east, affecting an unprecedented number of communities, resulting in loss of life, homes, livelihoods, assets, farmlands, wildlife and natural flora.

Natural disasters can be traumatic and stressful for children and young people, with impacts on mental health, wellbeing, and social inclusion [2]. While most children are resilient and will recover with time, some children and young people may experience more severe or ongoing mental health effects for years after the disaster. When natural disasters occur, schools and teachers are often amongst the first responders, providing practical care and psychosocial support [3].

In the short-term and long-term aftermath of disaster, schools and teachers are typically positioned as the primary site through which to provide mental health support for students who may be experiencing trauma as a result of the disaster. Evidence suggests however, that teachers, who may themselves have suffered losses or trauma as a result of the disaster, often feel under-equipped to respond to this trauma [4].

This review of academic literature is designed to help inform teachers, schools and education systems of key findings from the research relating to school-based wellbeing interventions in response to disaster. It contains a summary of the common impacts to mental health, learning and social connectedness that children and young people might experience as a result of disaster exposure. It then outlines the key role that schools can play in supporting students’ social and emotional wellbeing throughout different phases of natural disaster, including preparedness, support during the immediate aftermath, and provision of support for longer term recovery.

This document summarises research findings about the positive impact that wellbeing and mental health interventions can make towards mitigating the risks of negative mental health effects as a result of disaster. It demonstrates that rigorously implemented evidence-informed social and emotional learning (SEL) interventions are shown to be among the most effective universal approaches to student wellbeing, contributing both in prevention and recovery phases. These include both short-term psychosocial and arts-based interventions implemented in the immediate aftermath, as well as ongoing whole school SEL programs that augment social and emotional skills in a manner that is both preventative and responsive to disaster-related mental health risks.

This document also summarises key research which reminds schools of the importance of using trauma-informed and culturally responsive practices in the design and delivery of educative interventions and support structures.
MENTAL HEALTH AND WELLBEING EFFECTS OF EXPOSURE TO DISASTERS

Major incidents and natural disasters such as fires, floods, earthquakes, or cyclones can be traumatic and stressful for children and young people, with impacts on mental health, wellbeing, and social inclusion. Children and young people may be more vulnerable to the effects of disaster-related trauma than adults, as they may have less developed coping strategies, are dependent on others for social support, and are at a developmentally sensitive period in their lives [5-7]. Women and girls often carry a greater burden of negative impacts post emergency, due to increased rates of family and sexual violence [8].

Mental health and social effects in the immediate aftermath of a disaster

The majority of children and young people will recover from disaster experiences without requiring specialised support or intervention [4]. However, in the immediate aftermath of natural disasters, it is normal for children and young people to experience and show signs of distress. This distress is more intensive and long-lasting for some than others. In general, around 1 in 4 young people directly exposed to a disaster still have post-trauma symptoms three months after the event [9].

Others may experience less severe effects that are nonetheless disruptive and distressing. Post-trauma symptoms may include:

- increased peer conflict or problems within social relationships;
- behavioural changes (withdrawal or ‘acting out’ or behaving in aggressive ways);
- pre-occupation with re-enacting negative events in plays and stories;
- difficulty concentrating on learning;
- difficulty talking about traumatic events; and
- anxieties about safety even when threats are no longer evident [9-13].

These effects can negatively impact students’ relationships, academic achievement, and physical health.

WOMEN AND GIRLS OFTEN CARRY A GREATER BURDEN OF NEGATIVE IMPACTS POST EMERGENCY, DUE TO INCREASED RATES OF FAMILY AND SEXUAL VIOLENCE
NATURAL DISASTERS AND VIOLENCE AGAINST WOMEN AND CHILDREN

Students may experience changed home and family environments in the immediate aftermath of natural disaster, which in turn may affect their wellbeing and behaviour. Family violence rates tend to increase in disaster-affected communities. For example, police reported a 53% rise in family violence following the Canterbury earthquake in New Zealand. In the United States, researchers found a 98% increase in the physical abuse of women after Hurricane Katrina [14]. In Victoria, researchers found strong evidence of increased family violence followed the 2009 bushfires [15].

Medium to long-term mental health and social effects

Some children and young people exposed to disasters may experience severe mental health outcomes, including post-traumatic stress disorder, re-experiencing symptoms, sleep problems, avoidance behaviours, and depression or anxiety [16, 17]. Those with pre-existing mental health problems are more likely to develop post-traumatic stress disorder following exposure to a disaster [18]. Estimates are that up to 30% of children and young people experience effects lasting for many years after the disaster [5, 19]. Additionally, for some people the most serious impacts don’t manifest until considerable time has passed.

As post-disaster social and infrastructure support becomes less available and longer term changes accrue in impact [2, 10, 20]. Thus longer term recovery support is important.

Many studies have researched the long-term mental health effects of bushfires and other natural disasters on children and adolescents [21-29]. An Australian study with an adult cohort following the 2009 Victorian bushfires found that, although rates of mental health problems among those exposed diminished over time, these nonetheless remained higher than national levels [12, 30, 31].
Post-traumatic stress and post-traumatic stress disorder

"Post-traumatic stress" is the term used to describe the normal response to trauma whereby people experience the intrusion of distressing thoughts, feelings and memories as they come to terms with their experience. This requires processing on their part over time. The term "post-traumatic stress disorder" (PTSD) is used when the reaction has become a severe anxiety disorder which may include continuing to re-experience the original trauma(s) through flashbacks or nightmares; a strong need to avoid images, sounds or places associated with the trauma; increased arousal and hyper-vigilance or need to keep checking for safety; difficulty falling or staying asleep; anger; and numbing. The term 'disorder' is used when these symptoms persist over time and are severe enough to cause significant impairment in social, academic, or other important areas of life.

Risk of developing Post-Traumatic Stress Disorder

The risk of developing post-traumatic stress disorder varies depending on individual, familial and community contexts.

The severity and context of people’s exposure to disaster can influence whether people go on to experience mental health problems or social difficulties, as can the presence of other risk factors in their lives [4]. Risk factors associated with more severe or ongoing post-disaster psychological distress include:

- having feared for one’s life during the disaster [31];
- significant or multiple losses, including loss of family members or loved ones [31];
- displacement from home, or loss of significant pets and belongings [32];
- exposure to ongoing, or repeated disaster events over time [12, 30];
- exposure to continued risk and disruption, such as bushfires in high risk-risk areas where the threat recurs annually [7];
- pre-existing mental health vulnerabilities or a history of trauma [18];
- pre-existing physical or cognitive disabilities [30];
- a lack of social support during and after the disaster [6]; and
- ongoing disruptions such as not being able to return to school, housing insecurity and increased family violence in the aftermath of the disaster [15].
Impacts on learning and classroom behaviour

Exposure to disaster can also negatively impact learning and academic performance. Disruptions to learning may occur when school facilities are destroyed, teachers become unavailable or preoccupied with dealing with impacts of disaster in their own lives, or when children need to be relocated due to school closures. Students may find it harder to concentrate and engage with challenging tasks whilst dealing with emotional impacts. At a classroom level, increased behavioural issues may also impact learning.

In the 18 months following the 2011 Christchurch earthquakes, teachers reported that student behavioural problems more than doubled [7]. In another study investigating the impacts of the 2014 Hazelwood mine fire in Victoria, teachers reported that learning was disrupted by decreased engagement and difficulty concentrating, heightened anxiety, increased peer conflict, and increased family violence and instability [30]. While longitudinal studies have been rare, one 20-year follow-up of bushfire-affected children found that they were less likely than the comparison group to go on to extend their education and careers [17]. Another study found that in areas of high bushfire impact, student literacy and numeracy development was negatively impacted in the years following the disaster [10]. Impact on learning was more significant in learning domains demanding the highest levels of concentration, such as maths and reading [10].

Impacts of disaster exposure on mental health

Children and young people commonly experience symptoms of post-traumatic stress in the immediate aftermath of a disaster. While research shows that most children and young people are resilient and will recover with time, some may display chronic stress reactions or other mental health symptoms years beyond the initial event [33]. Those with pre-existing mental health problems, those with heightened risk factors in the home life, and those who experience multiple losses or inadequate support are more likely to be in this category. It is important that schools provide ongoing social and emotional support, so as to cater for both short and long-term impacts on the mental health, wellbeing, social connection and learning of students exposed to disasters.
Schools can contribute in a range of ways to disaster preparedness, relief and recovery. Disaster-affected communities may have limited resources to carry out specialised trauma and relief programs. At this time, schools play a crucial role in supporting young people and their communities as they provide ‘practical, feasible and scalable’ mental health interventions [34].

The model below identifies key contributions that schools can make in disaster preparedness, prevention, response and recovery.
Disaster preparedness: Schools can be effective providers of disaster preparedness education or initiatives which teach students how to deal with the immediate and practical challenges faced in a disaster, such as teaching students how to stay safe in fires or floods, or how to work with their family to develop and practice a family response plan. When young people are more able to appraise risk and understand what they can do to reduce risk or to cope with adversity, they are less likely to worry. Research indicates that appropriately-timed school-based disaster preparedness training can help to alleviate fears of vulnerability during natural disasters; reduce physical risks of disaster by aiding participants with the information to recognise the signs of dangers and take appropriate action; lead to better decision-making; lead to the adoption of hazard minimisation strategies at home; and promote a sense of control in a disaster situation by improving coping mechanisms [26, 35, 36]. Disaster preparedness may best be provided as part of a routine curriculum, rather than in a reactive way during or immediately post disaster.

First responders: Schools and teachers are sometimes called on to play a key role as first responders in the immediate aftermath of a disaster, as disaster can occur during the school day, when the students are in the care of their teachers. School sites are often used as a community resource during or after a disaster. For example, teachers and schools played a very effective role in keeping students safe and calm when earthquakes struck during the school day in New Zealand [37].

Security and support: Schools are an important source of continuity in young people’s lives. They can provide a secure environment which helps students to settle and engage in activities which take their minds off the trauma, provide hope and a structure through which things can return to normal. They make a significant contribution by providing a predictable routine, consistent rules, emotional support and engaging activities. Teachers also help to model appropriate social and emotional responses after disasters [38].
Referral: Schools are an important setting in which to notice and refer students or families who need more specialised support post-disaster [39]. The knowledge teachers have of their students positions them well to notice and refer behavioural changes or symptoms of post-traumatic stress, and to monitor and support recovery [4, 38, 40]. Disaster victims are often reluctant to seek professional help, but schools can assist by being a proactive part of the referral process [38].

Psycho-educational support in the immediate aftermath: Schools can also provide education in the early aftermath which helps students to understand the range of responses people can have to trauma, and to process and express their emotions and desires to contribute [38]. In delivery of these programs, teachers can reinforce emerging coping skills, correct misinformation, facilitate peer support and play a role in destigmatising mental health distress and help-seeking [41].

Supporting longer-term recovery and prevention: Along with the education and support provided in the early phases post-disaster, schools are ideally positioned to provide long term psycho-educational support in the form of social and emotional learning programs. These programs help students to develop the resilience they need to deal with the challenges of life. Research shows social and emotional learning programs are an effective way to provide the longer-term support that students need as they recover over time. Students who do these programs are less likely to suffer from post-traumatic stress disorder. [42]. Additionally, those who receive social and emotional learning programs prior to the onset of disaster as less likely to develop PTSD [42].
DISASTER PREPAREDNESS AND RESPONSE PROGRAMS

The Victorian government Bushfire Education website provides teaching and learning resources to support targeted bushfire education in early childhood settings, primary schools and secondary schools. The Bushfire Education website includes teaching and learning activities grouped under the four themes of learning about, preparing for, responding to, and recovering from bushfires. All teaching and learning activities have been aligned to either the relevant Victorian Early Years Learning and Development Framework outcomes or the Victorian F-10 curriculum. Other states and territory education systems also provide resources and links to services.

Using Trauma-informed approaches

Children already affected by trauma have heightened vulnerability to psychological distress following exposure to a disaster. Exposure to trauma does not only happen during emergencies or disasters. Trauma can be interpersonal, such as when a child is exposed to ongoing violence. Sustained exposure to trauma can result a low sense of self-worth, difficulty trusting others, and misperception of the intentions behind other people’s actions [43]. Up to 40% of Australian students have been exposed to, or witness to, traumatic stressors [44]. Whilst dealing with normal levels of stress helps children to build resilience, traumatic or toxic stress can create a sense of terror or helplessness which can contribute to wellbeing and learning problems [38, 45]. Children who have experienced trauma may experience a heightened state of vigilance or alarm even in the absence of specific threat.

Teachers are encouraged to use trauma-informed practices, informed by the understanding that trauma significantly alters the baseline physiological arousal levels in children and young people, impairing their capacity to use logic and reasoning, form positive relationships, solve problems effectively, manage behaviour, regulate emotions, concentrate on learning, or recall learning [46]. Trauma-informed approaches place emphasis on making the routines, relationships and activities that make up school responsive and flexible to the needs of all children and young people, including those affected by trauma. Trauma-informed practices are used to support children and young people to reset their baseline internal stress and arousal levels. This helps to settle them, and become more able to engage and concentrate on learning [46]. While only some children and young people may be affected by trauma, all students benefit from working within trauma-informed learning spaces [47].
Considering equity, inclusion and cultural responsiveness in school-based disaster recovery

Responses to disaster and trauma can vary between cultures, as can coping styles and preferred modalities for emotional expression and regulation. Various cultural and ethnic groups, including First Nations peoples and Traditional Owners, may perceive natural disasters and respond to warnings in different ways, and the psychological effects of disaster exposure may vary between groups during periods of disaster, relief and recovery [49]. Some population groups may be more vulnerable to impacts due to language, housing patterns, access to resources, community isolation and the cultural insensitivities of surrounding others [49, 50].

In the context of schooling, research highlights that students in the same classroom can have very different perspectives on whether they feel supported, safe and included. For example, those who experience ethnic or gender discrimination, economic inequities, and other forms of social marginalisation can experience marginalisation and additional distress at school. Post-disaster, students who haven’t previously experienced their schools as an inclusive and supportive space can find it harder to engage in school-based response activities. In addition, the programs provided may not be well-attuned to respond to their needs or capacities. Evidence suggests that schools should approach social and emotional learning in a way that recognises diverse cultural strengths and is responsive to their various cultural assets [51].
School-based disaster response interventions can differ in purpose, reach, focus, and duration.

Schools can provide a range of interventions as part of their disaster preparation and recovery efforts. Interventions will vary according to who they target, what they focus on, and when and for how long they are delivered, and the skills of those providing them.

- **Universal interventions** are delivered to all students in a school.

- **Specialised or targeted interventions** are additionally delivered to students who have been identified to be at higher risk.

- **Short-term post-disaster** interventions are delivered in the immediate aftermath and typically happen in the first few weeks to settle and support students as they make sense of what has happened and begin the work of a return to the routines of normal life. They typically focus on processing the traumatic events themselves, and learning skills for emotional regulation, peer support and help-seeking.

- **Long-term post-disaster** interventions (4-6 months or longer) focus on building coping skills and resilience and advancing social and emotional learning. They are designed to build resilience for life challenges in general, as well as to mitigate against the potential long-term social and mental health effects of a disaster. They are also provided as part of prevention education as they improve people’s capacity to cope with trauma and disaster.

- **Prevention interventions** are universal interventions. They are designed to build coping skills and resilience for everyday life, and can also help people cope with the psychological and social effects of disaster exposure.

- **Preparedness interventions** are universal interventions implemented prior to disaster. They focus on teaching the skills people need to plan for and keep themselves safe during an emergency.
Research has shown that universal, classroom-based social and emotional learning interventions delivered by teachers can be more effective in promoting psychosocial health than targeted one-to-one or small group interventions delivered by trained mental health professionals [52, 53].

Social and Emotional Learning (SEL) interventions explicitly teach students the skills, attitudes and behaviours for emotional regulation, critical and creative thinking and positive relationships. They develop the key skills of self-awareness, self-management, social awareness and develop relationship skills and responsible decision-making [51]. These are important life skills. When these social and emotional competencies are taught from a young age, they can positively impact the lives and wellbeing of young people [54]. Students who participate in rigorously designed SEL programs demonstrate:

- Improved mental well-being and reduce anxiety, depression and suicidality [55-59];
- Improved emotional regulation and self-perception [60];
- Improved social and classroom behaviour [61];
- Reduced bullying and gender-based harassment [62, 63];
- Reduced use of cigarettes, alcohol and other drugs [58, 64];
- Reduced school drop-out [55];
- Improved student connectedness to learning, to teachers and to school [65-67];
- Improved academic achievement in the range of 5-11% [60, 64, 68];
- Improved employability in rapidly changing workplaces and labour markets [69]; and
- Reduced prevalence of post-traumatic stress disorder post exposure to disaster [16].
EFFECTIVE SEL CLASSROOM PROGRAMS

Several longitudinal studies have documented the way in which SEL initiatives provided in the primary years can have a lasting effect, promoting resilience and school connectedness well into the high school years [70, 71]. The most effective SEL programs are those that:

- Contain explicit teaching of social and emotional skills
- Are of greater intensity
- Are of longer duration
- Combine knowledge, social and life skills, normative approaches, critical thinking and negotiation skills
- Are delivered within a broader wellbeing curriculum that incorporates a range of social, physical and mental health issues
- Are taught by the classroom teacher
- Are taught within schools providing a positive relational climate.

Social and emotional learning programs contribute to recovery and prevention

In addition to general benefits of SEL programs, these programs can be used as part of longer-term support for student wellbeing and mental health post disaster [16]. Further, SEL programs provided prior to the onset of disaster can equip students to cope better when exposed to trauma, with reductions in subsequent rates of mental health disorders [16].
SEL INTERVENTIONS CONTRIBUTE AS PREVENTION AGAINST ONSET OF PTSD FOLLOWING DISASTER

One study which investigated the impact of prevention education programs in supporting post-disaster resilience was conducted with 1488 Israeli primary school students exposed to rocket attacks. It found that those who had participated in a 14-week SEL prevention program prior to the attacks were significantly less likely to develop PTSD following the rocket attacks. Only 7.2% of students who participated in the SEL program were identified post disaster to be suffering from PTSD, as compared with 11.3% of students in the control group who had not received the SEL program prior to the disaster [42]. This highlights the role that SEL-based prevention education can play in preventing the onset of trauma following a disaster, as well as developing the skills and strategies that young people need to cope with daily stressors and challenges in their lives.

Post-disaster programs

Experts have called for post-disaster programming to include universal school-based interventions geared toward the broader audience of young people who may have a range of disaster exposure and are at an increased risk for future adverse reactions [72].

Post-disaster universal wellbeing interventions acknowledge the need to support all students in the affected community including those who are not perceived to be at direct risk [39]. Post-disaster programs aim to reduce the risk and severity of mental health effects following an emergency or disaster. These programs can include both universal prevention programs that target all children in a school in the immediate aftermath, and during more sustained support for recovery.

Programming can also include specialised interventions that target smaller groups of students who have been identified to be at increased risk of developing a mental health problem [34]. These interventions involve activities aimed at building the social and emotional climate of the school and enhancing student ability to cope with adversities [34].

Programs provided in the initial aftermath commonly focus on assisting students to make sense of what has happened, and to understand and manage their responses. They typically include a focus on self-calming strategies, and coping strategies to help them to manage frustration, anxiety and conflict. They raise awareness of available supports and services and promote help-seeking, peer support and peer referral.
GENERIC ADVICE PROVIDED TO GUIDE TEACHER RESPONSES IN THE IMMEDIATE AFTERMATH

- Establish and maintain normal classroom routines
- Build positive relationships between students and staff
- Remain calm and optimistic
- Convey a clear message that the threat/danger is over and that good things will continue to happen
- Practice self-care and seek support for self, colleagues and students
- Use trauma-informed practices to help students settle and focus
- Provide structured but limited opportunities for voluntary talk, writing or drawing about what has happened
- Avoid asking students to re-tell and dwell on the trauma, and encourage them to think of the strengths people and communities have used to respond well and to help each other
- Share about the positive coping strategies that people have or can use to help them deal with the traumatic events
- Provide spaces and time to focus on techniques for self-calming and emotional expression and regulation skills through mindfulness, circle time, relaxation activities, arts and non-competitive games and sports
- Provide some activities just for fun or to lift the mood, such as via use of music and play
- Anticipate situations which may trigger distress, such as alarms, hot and windy weather, fog or smoke, and reassure and inform about what is happening
- Use positive discipline strategies which favour heightened use of positive formative feedback and recognition of effort
- Scaffold challenging or sustained learning tasks to foster a sense of moving forward
- Arrange brain breaks during tasks requiring higher levels of concentration
- Provide students with additional notice and reminders of changes to scheduled events or routines
- Monitor students for symptoms of trauma or behaviour change over time, and refer as warranted

For further advice see the Australian Institute for Disaster Resilience
Long term social and emotional learning interventions provide sustained support for recovery

Whilst research shows the importance of including long-term (6 months or longer) prevention and mental health programming after a disaster, services are often only geared toward interventions in the immediate aftermath. Although these emergency intervention services are necessary for mitigating posttraumatic stress symptoms, they often focus specifically on responses to the disaster [2, 16, 73]. Longer-term interventions, ideally delivered by the classroom teacher, focus on emotional responses and coping strategies for use in everyday life as well as those used to deal with loss, disruption, and the recurring threat that the disaster may happen again [72]. They build protective factors such as social support and coping skills, which are essential both for both disaster recovery and for navigating the challenges of life [52].

Post-disaster interventions that address social and emotional competencies have been shown to improve child and adolescent mental health outcomes. One review of research studies investigated the impact of 22 different school-based interventions targeting negative mental health outcomes as a result of exposure to conflict or natural disasters. Findings showed that 55% of these programs had positive impacts, reducing occurrence and severity of post-traumatic stress disorder (PTSD), depression, and behaviour and conduct disorders [34]. This review of research found that structured, longer term programs were more likely to be effective in mitigating the negative mental health and social effects of conflict or disaster [34].

A study investigating the impacts of a universal, curriculum-based SEL program implemented following a natural disaster in Oklahoma found that the program contributed to improved communication skills, ability to manage conflict, resilience, and emotional regulation [16]. An investigation of the long-term effectiveness of a Turkish school-based intervention aiming to support resilience and wellbeing post exposure to conflict found that of 287 young people aged 9 to 17 who took part in the study, those who received the intervention continued to display lower levels of PTSD, grief and dissociation than the control group, as measured three years after the intervention [74].
AN OPEN-ACCESS EVIDENCE-INFORMED SOCIAL AND EMOTIONAL LEARNING PROGRAM FOR PRIMARY AND SECONDARY SCHOOLS

Schools value open access to comprehensive evidence-informed social and emotional learning programs, particularly when they are endorsed or provided by their education system and are mapped to their curriculum.

The Resilience, Rights and Respectful Relationships program is an example of a comprehensive, evidence-informed universal social and emotional learning program. The Resilience, Rights and Respectful Relationships learning materials have been designed for teachers in primary and secondary schools to develop students’ social, emotional and relationship skills. Efforts to promote social and emotional skills and positive gender norms in children and young people have been shown to improve mental and social health and to reduce antisocial behaviours including bullying and gender related violence.

The Resilience, Rights and Respectful Relationships learning materials are provided for all levels of primary and secondary education. They are mapped to the Victorian curriculum, which is similar to the Australian curriculum. The teacher manuals provide detailed age-appropriate and sequenced learning activities addressing 8 topics: Emotional Literacy; Personal Strengths; Positive Coping; Problem Solving; Stress Management; Help Seeking; Gender and Identity; and Positive Gender Relationships.

The Resilience Rights and Respectful Relationships resources are open access on the Victorian Department of Education Fuse website.

Rights and Respectful Relationships online learning program provided by the Victorian Department of Education is available to support teachers. It can be accessed by those with a university or education system email address.
Social and Emotional Learning Programs Play a Key Role in Supporting Wellbeing in All Stages of Post-Disaster Work in Schools

Psycho-educational programs can be used to assist in the immediate aftermath of a disaster and as part of a longer-term focus on recovery and prevention. Tailored programs focusing on initial recovery are usually offered in the immediate short term. Longer term social and emotional learning programs are provided to assist with longer term recovery. They focus on building resilience and life skills rather than just on responding to trauma. These programs help to develop the social and personal capabilities which equip people to deal with adversity and the challenges of everyday life. Delivered prior to disaster, SEL programs can also help to mitigate the impact of trauma and disaster.

Using Arts-Based Interventions to Promote Recovery Post-Disaster

Arts, sports and leisure programs can be used post-disaster to provide young people with a voice and an opportunity to enhance connectedness and relationships. Whilst these programs can provide therapeutic benefits, they should not be confused with therapy provided by trained professionals for those with indicated needs. Rather, they are most effectively used as part of broader education, community building and psychosocial endeavours [8].

Arts-based interventions provide a powerful mode for collective expression. They may use a range of mediums including conversations, drama, drawing, storytelling, music making, dance, circus and expressive play to support students to explore emotions and connect with others in the aftermath of a disaster [37]. Research shows that arts-based wellbeing interventions can positively impact children’s ability to process their experiences following a disaster, to manage post-traumatic stress, and to build social cohesion and self-confidence [37, 80]. Arts-based interventions have been shown to be most effective when collaboratively created with children as this helps to create a sense of agency, authenticity and safety [37]. Whilst students also need opportunities to individually process disaster-related events,
collaborative engagement in arts-based activities can help them to understand that others may have experienced similar traumas too, and that together they are a source of resilience and strength [80].

A number of researchers suggest that an undue focus on individualised re-telling of the more traumatic parts of their disaster story may be unhelpful, and that this can best be left to more therapeutic endeavours. Rather, metaphors, analogies, traditional songs, dances, myths and stories can be used to provide a form of protective distancing and function as motifs through which to explore concepts of resilience and integrity in the face of adversity [75-79].

Arts-based interventions can be used along with SEL programs to support recovery in post-disaster settings. In general, both draw on multiple methods and use collaborative and capacity-building activities as part of their approach. Arts-based projects may be provided by arts educators within the school, or with the support of community artists working closely with teachers. Both SEL and arts-based interventions prioritise student wellbeing and safety, use strengths-based approaches, and work to ensure that students are working within a safe space and supportive environment [80, 81].

EXAMPLES OF ARTS-BASED INTERVENTIONS

Following the 2010–2011 New Zealand earthquakes, a UNESCO-funded project supported a range of schools to use arts-based practices to tell their shared story. In one school, children, families, teachers and the principal all contributed to an illustrated book of experiences. In another school, children became documentary makers. In a third school, children worked with teachers, artists and community members to create a sequence of detailed mosaic panels representing the community’s story before, during and after the earthquakes. In all cases, children reported their projects to be positive and helpful, and felt that the expressive power of the arts had supported their social connectedness and emotional processing of the experience [37, 80].

After the 2009 Black Saturday fires in Victoria, a therapeutic music program was developed that used song-writing and the sharing and discussing of songs to support emotional processing and connection among young people [82]. Participants valued the experience of playing music with others who had been through similar experiences and who understood them. The collaborative musical experiences helped people to empathise and form connections with others who had experienced loss and regain confidence in their capacities to grow and learn.

For further Arts resources and examples see The Arts Health Network, and The Creative Recovery Network.
ARTS-BASED INTERVENTIONS CAN CONTRIBUTE DURING DISASTER RECOVERY

Arts-based interventions can play a valuable role in narrating the community’s response to disaster, and in rallying strengths in moving towards recovery. They offer a range of ways to use protective distancing in storytelling whilst also offering expressive and restorative modes for collaborative engagement with what has happened and can contribute towards re-generation of social capital in affected communities.

SUPPORTING TEACHERS TO FACILITATE SOCIAL AND EMOTIONAL LEARNING AFTER DISASTER

Many teachers report that they feel under-prepared to respond to disaster-related trauma [4]. Several studies have highlighted that teachers themselves need support following a disaster, both with regards to their own social and emotional wellbeing and in relation to the pedagogical challenge of providing wellbeing programs for students. Schools may have been damaged or relocated, resulting in a lack of access to teaching resources, and the pressure of taking on additional non-teaching duties to ensure students can safely get back to school [30]. Teachers themselves may be affected by trauma and personal losses and some may feel unable to deliver classroom-based post-disaster intervention [38]. Some teachers may also feel reluctant to facilitate mental health interventions due to lack of training or a belief that it is not a good fit with their job [4].

In addition to existing wellbeing support structures, schools may need to provide a range of individual and structural supports to teachers to enable SEL interventions to be delivered with fidelity. SEL research suggests that effective supports for teachers include:

- provision of well-developed and explicit teaching resources to guide their approach;
- targeted professional learning demonstrating how to use these resources;
Routine school practices that support disaster preparedness, relief and recovery interventions

A number of routine school practices are ideally suited for continued use post-disaster. They include:

- Whole school approaches to trauma-informed practice;
- School-wide positive behaviour support;
- Mental health promotion and provision for social and emotional learning;
- Investment in strong partnerships with parents and community agencies; and
- Provision of well-structure pastoral care and wellbeing support systems and services.

In post-disaster contexts, exposed teachers may benefit from additional support structures that empower them to take on the new responsibilities associated with addressing traumas [38]. If they find themselves feeling helpless or unable to perform their regular pedagogical duties in the immediate aftermath of disaster, they may need specific provisions and alternative responsibilities as well as access to specialised psychological services [38]. A school-wide approach to teacher support may include creating spaces for teachers to express traumatic experiences; facilitating teacher relaxation; readjusting staff expectations to ensure they are realistic; and identifying and mobilising school and community-based resources that can assist staff in their own recovery [38].
Australian schools are equipped with numerous policies, frameworks and curricula to support student wellbeing. A few examples are described below. Schools are advised to check for the most updated wellbeing policies and frameworks for their state or territory.

The Australian Curriculum requires all teachers to play a role in developing the personal and social capabilities. Approaches to advancing the personal and social capabilities involve students in a range of practices including recognising and regulating emotions, developing empathy for others and understanding relationships, establishing and building positive relationships, making responsible decisions, working effectively in teams, handling challenging situations constructively and developing leadership skills.
The Victorian Department of Education's Student Wellbeing and Learning Policy states that schools must provide an integrated and comprehensive curriculum approach that incorporates equitable opportunities for all students to enhance their own and others' wellbeing through their daily learning experiences; and provide a curriculum that supports students to develop knowledge, understanding and skills that enables them to engage critically with a range of health and wellbeing areas and issues.

The Australian Student Wellbeing Framework supports Australian schools to be learning communities that promote student wellbeing, safety and positive relationships so that students can reach their full potential. The Framework is based on evidence that demonstrates the strong association between safety, wellbeing and learning.

The Australian Institute for Disaster Resilience provides a range of disaster response and education resources for primary and secondary schools and an overview of how they link to the Australian Curriculum.
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CONTACT US

PHONE: +61 3 8344 9633
EMAIL: yrc-info@unimelb.edu.au