
Crisis Management in Schools: Evidence-based Postvention

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Abstract

Critical incidents in or involving schools include shootings, stabbings, other forms of homicide, terrorist activity, suicide, road traffic accidents, major fires or natural disasters, which result or might result in death and/or serious injury to students and staff. Where crisis management plans exist, they might be based on “common sense” or clinical judgement, risking worsening rather than improving outcomes. The relevant evidence base is scattered and of very various quality. This systematic review addresses these difficulties. This second part of the review focuses on postvention (action after the incident). The beginnings of an evidence base can be seen. There is conflict between medical models of intervention and social community-based models. Intensity of exposure is a strong predictor of adverse outcomes, which may stem from primary or secondary adversity. Information is often demanded by stakeholders, but it is unclear how to provide this most effectively. A balance must be struck between reactivating painful emotions and tacitly encouraging suppression (both of which can worsen outcomes). Participation in “support” activities should be voluntary. Psychological Debriefing (under various names) and Eye Movement Desensitisation Reprocessing (EMDR) have no convincing evidence for effectiveness (although intervention definition and implementation fidelity have been problematic). Methods might be differentially effective with different groups (e.g. females). Large scale crisis management policy initiatives are not necessarily evidence-based and might worsen outcomes in some respects. Crises can have some benefits. Implications for policy, practice and future research are outlined, and summary practice guidelines for schools offered.

Introduction

Critical incidents in or involving schools include shootings, stabbings, other forms of homicide, terrorist activity, suicide, road traffic accidents, major fires or natural disasters, which result or might result in death and/or serious injury to students and staff. Emergency services are trained to deal with such events on one level

(although accessibility is an issue in rural communities), but such services cannot have detailed knowledge of local context and needs, and do not have the resources to handle prevention and long term follow-up planning. Consequently, many local education authorities (school districts) have developed crisis management planning expectations and frameworks for schools. However, these might be based upon local received wisdom, “common sense”, clinical judgement or singular professional perspectives, rather than a systematic review of the evidence, carrying the risk that well-meaning intervention might actually worsen outcomes in the short or long run. Of course, local education authorities have little option when the evidence base is scattered, or very various quality and difficult to access. This review of the evidence addresses this difficulty, and has strong implications for policy and practice.

The review is in two parts. The first part (published previously in *Journal of Educational Enquiry* Issue 7 Number 1) focused on prevention although, of course, many of these incidents are not wholly preventable, so “risk reduction and management” might be a more apposite concept. This second part focuses on postvention (action after the incident).

Method

An extensive review of published works on school crisis management and intervention explored current theories, concerns, needs, empirical research and practical applications. A substantial volume of literature was found, relating to events which were widely different in scale from the macro - with profound effects impacting across the world, to the micro - with effects remaining within very limited boundaries. In this review, the main focus is on the micro level.

Electronic searches were made in PsychINFO, PsychArticles, PubMed and Web of Knowledge using search terms such as ‘crisis’, ‘critical incident’, ‘suicide’, ‘trauma’, ‘PTSD’ (Post Traumatic Stress Disorder), ‘Mental Health’ **and** ‘school’ **or** ‘youth’ (Boolean operators in **bold**). Similar searches were run on the Google search engine to identify relevant web sites. Books by noted writers in the field were also accessed manually in relation to content and citations. Items relevant to schools were prioritised.

The review was systematic in the sense that all available evidence from extensive searching was considered for inclusion. It was in the tradition of a ‘best evidence synthesis’ i.e. quality criteria for inclusion were applied, but not so narrowly that the review focused excessively on a very few studies showing the most rigorous research methods (but perhaps of doubtful external validity). This research field is still at an early stage of development and a quantitative meta-analysis would add little value as yet.

Postvention, Recovery & Unintended Consequences

The recovery phase of critical incidents involves providing support services for significant groups and individuals to assist the recovery of individuals, groups and communities. Shneidman (1981) coined the term ‘postvention’ in contrast to

prevention to describe the sorts of actions taken after a suicide, largely to help survivors such as family, friends, and co-workers. Postvention was seen as a natural extension to the established suicide-prevention field partly because there will always be some base level of suicide even when highly effective suicide prevention programs exist, partly because the survivors of a suicide can also be viewed as victims in need of assistance in dealing with their grief and other reactions, and partly to try to reduce the risk of contagion. There is a trend to use the term in the broader context of crisis management.

Komar (1994) examined techniques for postventions for adolescent school crises, proposing a two-component structure: the presence of a pre-existing crisis management team in the school and the availability of a postvention team to provide grief counselling and lethality assessment. This proposition of two independent teams contrasts with the more usual single team where counselling and assessment would simply be seen as two of the strategies available as means to recovery.

By contrast, Underwood and Dunne-Maxim (2000) discuss a postvention model that emphasises the involvement of the entire community in the resolution of grief and other issues after the death of one of its members, rather than delegating the entire responsibility to specialists in the school. This model of community involvement fits with Crondstedt's view (2002).

Shaw, Applegate, Tanner, Perez, Rothe, Campo-Bowen and Lahey (1995) made the distinction between 'event trauma' associated with a sudden unexpected event and 'process trauma' related to the multitude of secondary adversities associated with the event. Process trauma occurs with the displacement, relocation, property loss, and unemployment that may follow a traumatic event; with the family and social dysfunction evidenced in increased divorce rates, child abuse, disruptive behaviour, and school absenteeism; and with the depletion of resources, the erosion of support, and the emergence of conflict between survivors and responders (Pfefferbaum, 1998).

Perhaps the most often studied risk factor for negative outcomes following disaster events is the severity of the exposure to the event i.e. extent of life threat, loss, and injury. The literature examining the role of exposure to severe life threat or the death of others is definitive. Regardless of the traumatic stressor, be it war or other combat, physical abuse, sexual assault, or natural disaster, 'dose-response' is a strong predictor of who is likely to be most affected. The greater the perceived life threat and the greater the sensory exposure (i.e. the more an individual sees distressing sights, smells distressing odours, hear distressing sounds, or is physically injured), the more likely post-traumatic stress will follow (Holloway & Fullerton, 1994; Jones, 1985; Ursano & McCarroll, 1990; Young, Ford, Ruzek, Friedman & Gusman, 1998).

For crisis response in schools, much of the 'best practice' literature has tended to follow a 'medical model' of screening and referral (Poland & McCormick, 1999). Attention is given to physical and emotional needs. However, research in other areas of disaster service delivery suggests that there may be more effective

ways to assist in recovery. Baisden and Quarantelli (1981) completed a three-year comprehensive review of published and unpublished reports which involved interviews, symptom checklists, case studies and longitudinal data on disaster services provided to eight communities. They found that long-lasting emotional problems rarely occurred, that problems in daily living were common and that, in a crisis, most people did not approach mental health workers. Baisden and Quarantelli (1981) concluded that a social service delivery model employing outreach to homes and schools and assisting with transient problems of daily living was more effective than medical 'treatment'.

It has become common to offer support to 'process', to systematically assist those affected in examining their feelings in order to help minimise trauma and begin healing. 'Processing' is generally viewed not as a complex therapeutic technique, but rather facilitating discussion about a crisis by those affected – a kind of psychological first aid. There is some evidence that for children, having an opportunity to talk about what happened in a critical incident can be important to their recovery.

In one incident, a busload of children were kidnapped, transferred to darkened vans and ultimately shut in a container buried in the desert. After three days, the children managed to dig their way out and escape. The children were told by well-meaning adults to go home and forget about the incident (Sandall, 1986). Five years after this incident, it was found that every one of these children had clinical symptoms of depression, anxiety or fears about the world. Follow-up investigation found that some of them continued to experience problems in their adult lives (Pitcher & Poland, 1992).

In another incident where discussion was suppressed, Wraith (1991) described involvement several years after an incident in which a number of school children were killed and others were injured, some seriously. At the time of the incident, every aspect of the event was pushed under the carpet. The matter was not spoken of in the small community and the death of the children was given no attention. Years later, some children were still having nightmares about the incident, were refusing to travel in buses, and had refused to attend school since the incident. Such anecdotal reports can be illuminating, but there is a need for empirical research that considers the best ways to help children cope with trauma.

Access To Information

It is common practice in crisis response to give considerable attention to meeting demands for information either about the crisis or possible reactions. Typically this is done either by telephone or informational handouts (Pitcher & Poland, 1992; Western Australian Youth Suicide Advisory Committee, 1998). While there is a growing body of evidence that documents children's reactions to traumatic events (e.g. Brent, Bridge, Perper and Cannobbio, 1996; Poland & McCormick, 1999), there is no evidence to support the usefulness of such information when provided after a crisis. Although providing this kind of information might seem to make sense, a number of questions do arise. Does the information accurately reflect

research findings, is the information age-appropriate, does it promote effective support, intervention or self-care, and perhaps most importantly, is it read by the recipients? There has been no research investigating what are the most effective methods of delivering information after a crisis. It might be that the efforts put into this are a waste of resources that could be better targeted elsewhere.

Debriefing

In recent years post-trauma crisis intervention, and particularly the area of Debriefing, has been a contentious area. Debriefing has two principal intentions. The first is to reduce the psychological distress that is found immediately after traumatic incidents: the second, related intention is to prevent the development of longer-term psychiatric disorder, such as posttraumatic stress disorder (PTSD). Internationally, debriefing is now routinely offered, including to the victims of mass disasters and to individuals involved in traumatic incidents in the workplace. Engaging with debriefing is usually voluntary, but there are instances when it can be compulsory, such as debriefing of bank employees after hold-ups or in the case of police personnel who are victims of trauma. The assumption is that debriefing can prevent PTSD, but there may also be concerns to show compliance with a duty of care and thereby reduce or remove the threat of subsequent litigation for compensation. In a number of studies on psychological debriefing, participants report high subjective satisfaction ratings with such interventions (e.g. Richards, 2001; Mitchell, 2003).

Critical Incident Stress Debriefing (CISD) was developed by Mitchell (1983), who asserted that stress in emergency response workers could be thereby greatly reduced. Debriefing involves promoting some form of emotional processing/catharsis or ventilation by encouraging recollection/reworking of the traumatic event. Mitchell (1983) conceived CISD in seven stages:

1. Introduction (rules, process and goals are outlined);
2. The facts (clarification of what the participants saw, did, heard);
3. Thoughts and impressions (the participants' first thoughts and impressions of the event);
4. Emotional Reactions (exploration of individual's reactions);
5. Normalisation (assessment of physical and psychological reactions);
6. Planning for the future (educating participants about possible stress reactions);
7. Disengagement (information provided for follow-up).
8. The process was usually undertaken two to three days after the event. However, there is evidence that Mitchell's stages are not always followed and there are issues of implementation fidelity.

Paton (1992) subsequently identified four types of debriefing: the on-scene debrief, post-incident defusing, educational debriefing and psychological debriefing.

Psychological debriefing has attracted most interest and is now most often meant when debriefing is cited. Paton (1992) described psychological debriefing as having the primary goal of management of post-trauma consequences and assessment by human service workers. Secondary goals included: provision of support from other group members and from those running the psychological debriefing; discussion of the events; complete understanding of the event by all participants; listening to the information from other participants; acknowledging the normalcy of post-trauma consequences; providing information on post-trauma coping skills; contracting for recovery with the peer-support group; assessment by human service workers of all participants and determination of the need for follow-up services; follow-up to observe whether any long-term consequences are evident; and planning for further intervention.

In 2001, 58 disaster experts from six countries were invited to address the impact of early psychological interventions for victims/survivors of mass violence and disaster to identify both best practice and gaps in knowledge (National Institute for Mental Health [NIMH], 2002). A number of areas of agreement were reached including:

- A sensible working principle in the immediate post-incident phase is to expect normal recovery;
- Presuming clinically significant disorder in the early post-incident phase is inappropriate, except when there is a pre-existing condition;
- Participation of survivors of mass violence in early intervention sessions, whether administered to a group or individually, should be voluntary;
- The term 'debriefing' should be used only to describe operational debriefings. Although operational debriefings can be described as 'early interventions', they are done primarily for reasons other than preventing or reducing mental disorders.

A literature review was undertaken simultaneously, but a lack of well-designed studies led to a broadening of the area considered to early and later interventions for trauma related symptoms from a variety of stressors. Unfortunately, this lack of specificity, particularly in regard to the victim groups and the severity and nature of the incidents, (which included dog-bite, rape, assault, motor vehicle accident, burns, bereavement, non-injured victims of terrorist attack, bank robbery, combat-induced PTSD, earthquake and sexual abuse), the timing and type of interventions, made it difficult to draw other than the broadest of conclusions. The full literature review was never published; only a simple summary table, which was not connected with the 'conclusions' offered:

- Early, brief and focused psychotherapeutic intervention can reduce distress in bereaved spouses, parents, and children;
- There is no evidence that eye movement desensitization and reprocessing (EMDR) is a treatment of choice over other approaches;

- Selected cognitive behavioural approaches may help reduce incidence, duration, and severity of acute stress disorder, PTSD and depression in survivors;
- Early interventions in the form of single one-to-one recitals of events and emotions evoked by a traumatic event do not consistently reduce risks of later post-traumatic stress disorder or related adjustment difficulties. Some survivors (e.g., those with high arousal) may be put at heightened risk by such interventions;
- Other practices that may have captured public interest have not been proven effective and some may do harm.

Cohen, Mannarino, Berliner and Deblinger (2000) acknowledged a lack of research into post-traumatic therapy with children, but asserted that cognitive-behavioural therapy (including exposure therapy) and eye movement desensitisation and reprocessing (EMDR) were well-documented with adults. Flannery and Everly (2000) reviewed crisis intervention procedures within a Critical Incident Stress Debriefing context. They claimed mounting empirical evidence that this approach provided effective treatment. However, they provided few details of the relevant studies, but conceded that randomised experimental designs were still lacking and needed.

A review by Bisson, McFarlane and Rose (2000) noted there was little evidence of psychological debriefing preventing PTSD in adults. Rose, Bisson and Wessely (2003), in an update to their earlier Cochrane Review (Wessely, Rose & Bisson, 1999), reviewed 30 studies of psychological debriefing (randomised or quasi-randomised trials; participants aged above 16 intervened within 4 weeks; intervention = any brief single-session involving some reworking/reliving/recollection of the trauma and the subsequent emotional reactions). Studies were then excluded if the crisis intervention service was for psychiatric patients and/or their families; where the debriefing was of research participants; where counselling was used perinatal grief support/bereavement; where the intervention was for the treatment of pre-existing PTSD; where the intervention was aimed at an individual; and, where the intervention was aimed at children, reducing the total to 11 studies. The methodological quality of the included studies was considered variable. Only six studies targeted a similar intervention. There was no evidence that psychological debriefing reduced the risk of developing PTSD. Adverse effects were reported in the two trials with the longest follow-up, one involving victims in a Burns Unit and the other involving Road Traffic Accident (RTA) victims.

The Rose, Bisson and Wessely (2003) review had a number of shortcomings: relatively few trials were included, the range of trauma events varied considerably, all interventions were one-off events, there was no standardised format to the debriefing interventions, the period between the trauma event and the intervention was long, interventions were with individuals as opposed to groups, and there were a wide variety of outcome measures. Mitchell (2003), the protagonist of debriefing, questioned the independence of the Rose, Bisson and Wessely (2003) review, in that

two of its authors were primary investigators in two negative studies contained in the review and thus compromised independence.

Nonetheless, Rose, Bisson and Wessely (2003) concluded that compulsory debriefing of trauma victims should cease. They also considered why some treatments had adverse effects, postulating the possibility of 'secondary traumatisation', particularly where victims experienced sensations of guilt. There is some evidence that guilt or shame is of predictive importance (Andrews, Brewin, Rose & Kirk, 2000), but of course this might be not readily disclosed. It is also possible that debriefing might pathologise normal reactions and increase the expectancy of developing psychological symptoms in those who would otherwise not have done so (Summerfield, 2001). A further problem is that debriefing focuses on a single trauma. Even if all the victims of a disaster were exposed to a uniform event, focusing attention on this might divert attention away from other important psychosocial factors that differ between victims.

Muddled Models & The Politics Of Crisis

Everly and Mitchell (2000) reviewed the terms and concepts in the field of crisis intervention and attempted to establish some definitions. They found that much of the operational practice was at odds with the principles, prescriptions and protocols; the same words were being used to describe different things. Everly was a participant in the NIMH workshop (2002) and the report includes his dissenting opinion in relation to psychological debriefing. Everly made the point that conclusions regarding its effectiveness must be anchored to an operational definition of the term itself. Everly also made the point that evidence-based practice pertaining to mass violence or disasters should reflect research that has direct applicability to specific kinds of situations: disasters are not all the same.

Everly and Mitchell (2000) proposed a newer model in which CISD is but one stage of an encompassing Critical Incident Stress Management (CISM) model. CISM comprises of seven core elements:

- pre-crisis preparation of both individuals and organisations;
- large-scale demobilisation procedures for use after mass disasters;
- individual crisis counselling;
- small group de-fusing to assist in symptom reduction;
- CISD, a longer group discussion to help bring about psychological closure;
- family crisis intervention;
- follow-up procedures including possible referral for psychological assessment or treatment.

Deville and Cotton (2003) took issue with whether CISD and CISM were, in fact, different, noting that in claiming evidential support for CISM, Everly and Mitchell (2000) cited studies that only evaluated CISD. Devilly and Cotton (2003)

further questioned an apparent attempt at historical revisionism, wherein Everly and Mitchell (2000) claimed that CISD was never intended by its originator (Mitchell) to be a stand-alone treatment, but was always intended to be part of a CISM program. Devilly and Cotton (2003) note that the term CISM did not enter the literature until 1995, 12 years after Mitchell's original formulation of CISD (Mitchell, 1983).

Devilly and Cotton (2003) also offer criticism of a later review of CISM by Everly, Flannery and Eyler (2002), in which the authors offer a meta-analysis of 8 studies claimed to assess interventions consistent with the CISM model. Devilly and Cotton (2003) pointed out that the review offers no operational definition of the required elements for a process to qualify as CISM, and that Mitchell and Everly (the originators of CISD and CISM) authored six of the eight included studies, hoisting Everly et al. with their own petard.

Richards (2001) conducted a prospective field trial that compared two post-trauma support systems, CISD and CISM, with two groups of employee victims of armed robbery, in an organisation that initially used CISD as stand-alone for 16 months before moving to an integrated CISM model. The CISM model described by Richards involved: a system of pre-raid training, CISD, and additional individual repeat assessment and advice sessions one-month post-raid. The model of CISM used differed significantly from the 7-stage model described by Everly and Mitchell (2000). The Richards study had 225 participants in the CISD alone intervention and 299 in the CISM intervention (no significant differences between the groups in age, gender or employee status, although the samples were predominantly female - 91% and 88% respectively). The female preponderance is relevant, as Dyregov, Gjestad, Wikander and Vigerust (1999) found marked gender differences, and that traditional 'talking cures' may be better attuned to the needs of females. All participants had been subjected to different robbery situations and the homogeneity of the groups must be questioned, but all had been directly confronted by raider(s), no firearms were discharged, there were no physical injuries and none of the incidents involved hostage taking. Morbidity as measured on a range of scales was found to be equivalent at day-3 and one-month follow-up for CISD and CISM groups. However, Richards (2001) reported significantly less morbidity for the CISM group at 3-month and 12-month follow-up. Richards noted that the study was limited by the lack of a no-intervention control and sample attrition – arguably fundamentally flawed.

A confounding factor for the debate on psychological debriefing is that it has become a business. CISD and CISM have almost become franchised and it seems that many people's livelihoods depend on selling training to receptive organisations. Mitchell (Australian Broadcasting Corporation, 2003) said in an interview, "Every time they attack us, guess what happens? We have the busiest year in training people to do this stuff."

Devilly and Cotton (2003) suggested that depression was a much more probable sequel of traumatic event than PTSD. Creamer, Burgess and McFarlane (2001), in reporting findings from the Australian National Survey of Mental Health and Well-being, noted that 64% of males and 49% of females had experienced one

or more traumatic events. Of these, fewer than 2% of men and 3% of women met the criteria for PTSD over the preceding 12 months, with lifetime prevalence for the whole community estimated at 7.8%. PTSD is far from a certainty following a trauma. It follows that interventions should not be evaluated only for their effectiveness in 'preventing' PTSD, but also for their effects on other symptoms such as anxiety and depression.

A number of alternative interventions such as cognitive behavioural therapy have supportive evidence for post-trauma effectiveness. Devilly and Cotton (2003) suggested that early intervention be differentiated from psychological debriefing. Early intervention could provide 'restorative treatment' to individuals who requested psychological help following a trauma and who had clinically significant problems, this being an active attempt to treat present pathology as opposed to purportedly preventative role of CISD or CISM. Intervention for Acute Stress Disorder (ASD), which usually manifests within 4 weeks of a trauma and lasts from 2 days to 4 weeks, would be an example of such an early intervention.

In some instances, public policy relating to crises in schools has been extended into legislative action. In New York State, a task force was established to investigate and report to the Governor on "a practical plan to address the growing trend of violence and disruptive conduct in our schools and promote a safe learning environment" (New York State Center for Safe Schools, [NYSCSS], 2001). To address issues of school safety and violence prevention, the Safe Schools Against Violence in Education Act (SAVE) was later passed by the New York State Legislature and became law in 2000 (NYSCSS, 2001). A task force informed the legislation. Within two weeks of establishing the task force and in the wake of the Columbine High School killings that had occurred just 4 days earlier, the Governor proposed a comprehensive school safety law, Project SAVE, encompassing policing, education and crisis management functions (New York [State], Office of the Governor, 1999). In the event, Project SAVE (which guides the actions of schools in all aspects of crisis management) has a number of fundamental flaws, often ignoring both best practice and available empirical evidence.

Project SAVE legislation provided an outline for the development, composition and role of district and building-level safety teams and safety plans (New York [State], Commissioner of Education, 2001). The safety teams mandated are in fact planning committees rather than teams that carry out management, response and intervention tasks. The legislation also prescribes the composition of the teams that carry out management tasks and the development of the district and each individual school's crisis plans. The emergency response team includes school personnel, local law enforcement officials and/or representatives from emergency response agencies. The duties of this team are also mandated and include planning and implementing safety components, securing a crime scene, evacuation of buildings, defining a chain of command and establishing a communication system. Project SAVE mandates another team, the post-incident response team, comprising appropriate school and medical personnel, mental health counsellors and others who can assist the school community in coping. Contrary to established best practice, these statutory teams focus on safety and violence, giving only brief attention to

other kinds of events and outcomes, especially the mental health aspects of crisis management. The aftermath of the Columbine shootings may have been instrumental in leading the task force to focus on a more extraordinary kind of event, rather than the more 'routine' kind of crisis faced by schools. The New York task force also specifically recommended strategies such as debriefing (where there is as yet no supportive empirical evidence) and crisis drills (where there are concerns that these may heighten anxieties in some children).

Project SAVE presents a number of dilemmas for practitioners in New York State in that legislative requirements demand actions that are not in keeping with sound, research-based professional practice. The lesson from this is that practitioners must be mindful of policy and legal requirements wherever they might work and be able to balance these against ethical demands. Ethical, evidence-based, professional practice may not be a good fit with policy or law.

The effects of traumatic events are not always bad. People also show a number of positive responses in the aftermath of a crisis. Resilience is probably the most common observation. Although many survivors of the 1974 tornado in Xenia, Ohio, experienced psychological distress, the majority also described positive outcomes - learning that they could handle crises effectively, and feeling that they were better off for having met this type of challenge (Quarantelli, 1985). Crisis may also bring a community closer together or re-orient an individual to new priorities, goals or values. This concept has been referred to as 'post-traumatic growth' by some authors (e.g. Calhoun, 2000) and is similar to the 'benefited response' reported in the war or combat-related trauma literature (Ursano, Grieger & McCarroll, 1996).

Conclusion

One might well agree with the following: "The research on what works in school-based crisis planning is in its infancy. While a growing body of research and literature is available on crisis management for schools, there is little hard evidence to quantify best practices" (United States Department of Education, 2003, p. 1-4). Much of current practice is based on clinical judgement. Clinical judgment is, and will remain, a significant asset in guiding all aspects of the prevention and the management of critical events at school and in the context of the broader community. A number of current practices have been questioned as to effectiveness and as yet are unproven. Where evidence is available, it has been involved in definitional and methodological warfare between different stakeholders.

Debriefing remains an area of intense controversy, with studies in this area characterised by a range of methodological shortcomings such as small sample size, absence of randomisation, absence of control group, varying degrees of trauma, low response rates, confounding variables being ignored, sample bias, low response rates, lack of uniformity of intervention and timing variables. At this point, there is no empirical support for the use of psychological debriefing or of Critical Incident Stress Debriefing, at either the individual or group levels, as interventions that prevent post traumatic stress disorder. There appears to be no research examining

either psychological debriefing or CISD involving children. Accordingly, any 'routine' use of these with school children or school staff is contraindicated.

Implications For Future Research

Although many aspects of crisis management are not readily amenable to randomised controlled experimentation, there are enormous opportunities to validate current practice by research investigations that use a range of techniques and measures. Schools already collect significant amounts of information that reflect on the social climate: attendance records for staff and school children, reasons for absence due to sickness, examination and assignment results, enrolment and transfer data - all these (as well as academic achievement) will reflect the pre and post-trauma state of the school. Schools are in a position to gather information from individuals and groups over an extended period of time. There would be significant value in looking at coping behaviour over time as a trauma or stressful incident unfolds, in considering whether post-trauma is an effective time to introduce programs designed to prevent depression and anxiety in children, and in considering whether these would be more useful than interventions aimed at preventing post traumatic stress disorder. It appears that there is a growing interest in crisis management in general and wide support for considering the particular issues that relate to schools. Schools might readily accept a researcher during a crisis situation when the researcher is already part of the school's crisis management team.

An area of crisis management in schools that appears to be overlooked in research relates to the school personnel's continuing responsibility to care for large numbers of children or young people during a crisis event. Undoubtedly, school personnel carry an added burden of responsibility during a crisis. In the midst of crisis, children are likely to be looking to those adults who usually provide support, guidance, direction and leadership, to continue to fulfil these roles. A number of issues arise. Are school personnel more vulnerable to ongoing psychological trauma as a consequence of having to care for groups of children during a crisis? Or less? Do school personnel neglect their own well-being during a crisis while attending to the needs of children? How can school personnel be best-prepared to support children in crisis situations? How can the needs of school personnel be met? Although the potential effects of crisis work on school personnel have been acknowledged (Pitcher & Poland, 1992), at present there appear to be few answers to any of these questions from either the best practice or research literature. Although the spontaneous coping strategies used by emergency and health services personnel involved in crisis situations have been subject to some attention (Dyregrov & Mitchell, 1992), given the very different nature of their roles and responsibilities, it is open to question whether strategies such as emotional suppression and distancing could be recommended for school personnel.

The 'medical model' of screening and referral (Poland & McCormick, 1999) has been criticised, and Baisden and Quarantelli (1981) proposed that a social service delivery model, employing outreach to homes and schools and assisting problems of daily living, would be more effective than the medical model. This hypothesis has yet to be tested.

Given the limited state of research-based knowledge relating to school crises, it is difficult to make any substantive recommendations for action. What is clear is that there is a need for wide-ranging research into every facet of the crisis management process as it impacts on schools and the broader community.

Implications For Professional Action

At the present, there is limited knowledge from research that informs school-based crisis management. Until such a research base is established in future years, professionals will have to continue to rely on best practice models. Yet, even meeting what seems a relatively simple standard of best practice can be much more complex than it might appear. Practice may often be driven by policy direction from department or school, by legislative requirements, or by commercial persuasion. Some interventions might work for some students (e.g. females) but not others. Quality of implementation of a method may make a large difference.

In the area of policy, a school or organisation's crisis management policy should be updated regularly and should be consistent with developments in research (or best practice where there is an absence of empirical information).

Following a crisis event, it is important to provide access to immediate practical help and social support. Given the unproven efficacy of much of the support commonly available after a crisis, it is important that participation of those involved is voluntary. 'Medicalisation' of the problem and inertia until 'experts' arrive is contra-indicated. A social service delivery model that employs outreach efforts to homes and schools and which assists with immediate problems in daily living might prove an effective way to provide assistance to students, staff and families. Some thought needs to be given to how such daily living needs could be identified and addressed, since some may be situation-specific. If children or young people have been involved in a fatal bus accident for example, some needs might revolve around transport issues with just getting to and from school perhaps being a problem.

Employers have a duty of care to staff in relation to their workplace health and safety. Employee assistance programs may be available to some school staffs. Providing support from appropriately qualified personnel is an important sign of employer support for the victim and may be also be an opportunity to screen or monitor for early signs in those who may go on to develop ASD or PTSD. The findings from debriefing studies that, even when debriefing is shown to be ineffective in the aim of preventing occurrence of PTSD, the participants report high satisfaction ratings with the intervention (Richards, 2001; Mitchell, 2003).

However, interventions should focus on social and emotional support rather than on clinical intervention and the possible pathologising of normal reactions. Monitoring of those involved should continue for a time to allow for identification of those whose reactions may indicate a need for more help (e.g. those with symptoms of depression or PTSD). It is important to facilitate access to early

psychological intervention for those individuals who report persistent distress or other symptoms.

Factual information should be provided to stakeholders as it becomes available. People need to know what has happened and what is being done in response. For schools, this means that relevant information on an incident should be disseminated via a range of media (e.g. letters to parents, telephone statements, radio or television interviews) to those who need to know. However, relations with the media must be carefully managed as, in some cases, media coverage can worsen the situation.

Following the implementation of a crisis management plan, it is important to review actions of individuals and the organisation as a whole. The aim of this is to identify areas where improvements can be made to the response. Should individual or organisational failings be identified, the stress under which individuals operate during a crisis should be remembered. Care should be taken to avoid blame-allocation and the possibility of compounding post-crisis distress.

Crisis management teams in schools are being asked to prepare for a range of new and unpredictable contingencies such as bio-terrorism (United States Department of Education, 2003) which creates a climate of uncertainty, unpreparedness and feelings of not being in control. With a need for crisis teams to respond to new and different contingencies, it becomes increasingly important to have practice that is informed by research.

Table 1 presents a practice summary of prevention and postvention based on best practice models and available research evidence from both parts of the current review. Hopefully, this summary will become outdated in a short time as research informs practice.

Table 1. Crisis management for schools: Practice summary

<p>Have a Crisis Management Plan</p> <ul style="list-style-type: none"> • involving Prevention/mitigation, Preparation, Response, Recovery or other comprehensive emergency management model, but not rigid or bureaucratic. Seek help in crisis planning if these skills are not available in the school. 	Best practice
<p>Prevention/Mitigation</p> <ul style="list-style-type: none"> • Remove or reduce risks. Try to reduce the impact of events when risks can't be entirely removed. Consider realistic events and look beyond the physical hazard to areas such as socio-economic and psychological vulnerabilities. 	Best practice

CRISIS MANAGEMENT IN SCHOOLS: EVIDENCE-BASED POSTVENTION

<ul style="list-style-type: none"> Promote positive mental health using a range of Universal, Indicated and Selected programs such the Resourceful Adolescent Program, Aussie Optimism and MindMatters. 	Research based
<ul style="list-style-type: none"> Address Youth Suicide and its prevention within the plan, recognising that crises relating to such events require a different kind of response. 	Best practice & Research based
<p>Preparation</p> <ul style="list-style-type: none"> Consult and involve school and community-based individuals or groups in participative planning. If you plan to call on someone to aid in response, involve them in planning. 	Best practice
<ul style="list-style-type: none"> Assign roles in the crisis management team based on the school's resources and needs. Consider the qualities needed for an effective team able to function under stress and pressure. 	Best practice
<ul style="list-style-type: none"> Use drills and practices with caution so as not to raise anxieties while ensuring that any legislative requirements relating to fire and evacuation procedures are fully met. 	Best practice
<p>Response</p> <ul style="list-style-type: none"> Implement plans and mobilise resources. Develop options based on the information gathered, select and implement the appropriate responses. 	Best practice
<ul style="list-style-type: none"> The crisis management team and other responders may be entirely school-based or may also involve community supports. 	Best practice
<ul style="list-style-type: none"> Identify those in need of support. Provide appropriate levels of support and opportunities to talk. Remember to support those in crisis management roles and to take care of yourself. 	Best practice
<ul style="list-style-type: none"> Work with the media towards balanced coverage that presents the school's support strategies. Alert the media to guidelines on coverage of suicide so as to avoid contagion and copycat effects. 	Best practice & research based

<ul style="list-style-type: none"> • Implement appropriate Postvention when suicide is involved. 	Research based
<p>Recovery</p> <ul style="list-style-type: none"> • Provide support and counselling services for significant groups and individuals. 	Best practice
<ul style="list-style-type: none"> • Avoid any form of psychological debriefing. 	Research based
<ul style="list-style-type: none"> • Provide ongoing support and counselling where necessary. 	Research based
<ul style="list-style-type: none"> • Be aware of children's possible reactions to traumatic events and be cautious in any interventions with children. 	Research based & Best practice
<ul style="list-style-type: none"> • Consider implementing programs to prevent depression or other post trauma conditions. 	Research based
<p>Evaluation</p> <ul style="list-style-type: none"> • Review the effectiveness of the crisis management plan and make any changes. 	Best practice

The authors are developing an evidence-based framework for school risk management audits, coupled with the development and evaluation of an evidence-based training programme in crisis management for school staff and students.

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