Mental health response to disasters and other critical incidents

The right clinical information, right where it's needed
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Introduction

The management of critical incident stress has been proposed as a method of reducing short- and long-term problems (especially, but not exclusively, mental illnesses) that might follow a single, distinct life event or a public disturbance. Originally arising from concerns about soldiers and first responders, the mental health dimensions of disasters and other critical incidents are now considered a priority in disaster planning, response, and research.

Several groups have worked on consensus recommendations for the management of disasters and other critical incidents. A trauma group in the US has proposed a management strategy. The European Network for Traumatic Stress (TENTS) conducted a three-round Delphi process, and other organisations have also developed guidelines from consensus. From Chile, a similar model has been proposed based on a literature review. While the scientific evidence base for responding to the immediate and, to a lesser degree, long-term mental health aftermath of trauma and disaster is still emerging, the content in this topic reflects the best practices in this area based on available expert consensus and experience.

Definitions

Critical incidents range from small-scale events such as failed cardiac resuscitation to very large-scale events such as disasters. Such serious threats are stressful and may lead to a wide array of immediate and lingering symptoms and illnesses, at both individual and organisational levels. Critical incidents are defined differently in different contexts. What is common across the definitions is that the event threatens the continuity of the individual or the collective existence of the community.

It is worth situating critical incidents along a spectrum. Stress may be thought of as disturbance in an individual's equilibrium, and can be physiological, psychological, interpersonal, or environmental in origin; it is anything that disrupts a person's sense of balance but for which they have the coping mechanisms to recover.

A trauma involves exposure to actual or threatened death, injury, or sexual violence. Trauma occurs via one or more of the following: directly experiencing the traumatic event; directly witnessing someone else experiencing the event; or learning that the event occurred to a close family member or close friend.

Finally, a disaster is a trauma that overwhelms a community. For simplicity, only disasters - the largest and most complex of critical incidents - will be described hereafter; however, the principles should apply to all such incidents.

Preparing for disaster

Healthcare providers are part of the official first-responder group, and should be involved in community- and hospital-based disaster preparation training on a regular basis. One useful personal continuing education activity is for healthcare providers to read the Psychological First Aid Field Operations Guide. It provides a helpful overview of immediate response to disaster. Another helpful resource is the WHO guide to psychological first aid.

Disasters are chaotic situations, in which the rules are suddenly changed. Roads may be destroyed, communication systems dysfunctional, and horrific loss of life incurred, all of which make the usual functioning nearly impossible. Although we cannot know for certain the ways in which the disaster will change the setting, research on disasters has taught us the types of challenges that we are likely to face and the ways in which our reactions to those problems may not lead to a solution. For example, after a disaster, people take themselves or others to the hospital, without asking the officials who are in charge. This means that systems of triage have much less chance to work as patients collect en masse at the nearest or best facility. Training can help in this situation, but must plan for the spontaneous reactions of many people.

An organised response to a disaster involves the assessment of the stricken community’s past experience(s) with disasters, a needs assessment about its current situation, and integration of that information into pre-existing protocols. Ideally, the clinicians who are then deployed already have pre-event training in those protocols or will be able to undergo efficient, just-in-time training around them.
The mental health impact of disasters

The mental health impact of disasters can best be understood in temporal relation to the event.[11] The acute period can be understood as occurring from hours to days, to the early weeks afterwards, while the post-acute period occurs from weeks to months to years afterwards. It is difficult to precisely determine the temporal border between these two periods, but conceptually the acute period can be thought of as when the event(s) are still underway, while the post-acute period begins once the acute situation calms or normalises.

During the acute period, symptomatic reactions, rather than psychiatric disorders, are the rule. Although recurrence of pre-existing disorders is possible during the acute period, it is not otherwise a time when diagnosis is appropriate. Acute reactions can involve distress responses (changes in how people feel); cognitive responses (changes in how people think); and behavioural responses (changes in how people behave).[16] Many such responses are normative and possibly adaptive. However, they are more likely to require clinical attention if they endure or especially if they beget dysfunction or undue distress. Of course, any suicidality, however uncommon, warrants urgent clinical concern.

If initial symptomatic responses persist, they may coalesce into new psychiatric disorders over time. During the post-acute period, psychiatric diagnoses become the focus of attention, as weeks or months later, even initially adaptive psychological responses surely will have outlasted their utility. The most common post-acute disaster diagnoses of concern are post-traumatic stress disorder, major depression, and alcohol use disorders, although other substance use disorders and grief reactions may also be common.[17][18] Among these, alcohol use disorders are the most likely to reflect recurrence rather than new onset problems.[19]

Outreach and screening

In the best of times, mental health services tend to be under-used, a situation arising at least in part from the stigma which continues to envelop mental health problems. In the post-disaster setting, especially acutely, with so many recovery-related practical issues facing survivors as they and their communities often literally try to rebuild their lives, mental health issues run the risk of becoming even less prioritised than usual even as they become more pervasive. Outreach and screening, especially in the acute period, are therefore essential to helping connect survivors with services.[18][20][21]

Outreach requires movement of mental health services into non-mental health settings, especially co-locating them among the array of post-disaster services being offered to a community in what are often called family assistance centres.[17] Other elements of outreach include publicity campaigns, reaching out to individuals with caseworkers or crisis counsellors, partnering with communities or agencies, and identifying the target population(s) for these efforts.[22]

Active screening for psychiatric diagnoses in the post-acute phase in particular is essential since mental health sequelae of mass trauma are often not as evident as the resulting physical injuries.[18] Active efforts at screening and diagnosis in settings such as family assistance centres for conditions such as PTSD and major depression are therefore essential. Screening instruments can be used to efficiently trigger a clinical evaluation by a mental health or health professional. Assuming the latter will be in greater supply than the former, whether on-site or in proximity, health professionals can be used for initial evaluation of 'screened-in' individuals, referring to mental health professionals for more challenging cases much as would be the case in usual primary care settings.[23]

One excellent model for screening that has been proposed for traumatic injury survivors has just as much applicability to disaster survivors and involves the following:

1. Initial screening in the immediate days after the trauma/disaster
2. Follow-up phone screening at approximately 4 weeks for those survivors initially deemed at risk
3. Scheduling in-person treatment appointments for at-risk survivors who are found to be highly symptomatic.[23]
Management of acute mental health responses

Healthcare providers constitute one of the collaborative services to which referrals will be made. They are likely to see people who have suffered injury or loss and who are having severe reactions to what they experienced. In the immediate aftermath of the critical incident, healthcare providers need to establish a thorough baseline of physical and mental health.[18] [24] [25]

In the acute aftermath of disasters, people need to affirm the continuity of life, and to join with others to repair injury to self, social networks, and physical systems.[24] [26] [27] [28] At the heart of the successful management of a critical incident is ensuring that the incident does not destroy the person or the person's society. Leading trauma researchers in the US, aware that there was no proven technique for mental health interventions after disaster, convened a meeting to assess what strategies were supported by evidence.[3] This group identified five essential elements:

- A sense of safety
- Calming
- A sense of self- and community efficacy
- Connectedness
- Hope.

Collaboration was undertaken by two major research centres to translate these 5 domains into actions that providers could undertake in the aftermath of disaster. The 5 principles identified in the first phase of the work have been translated into 8 core activities:

- Contact and engagement
- Safety and comfort
- Stabilisation
- Information gathering
- Practical assistance
- Connection with social supports
- Information on coping
- Linkage with collaborative services.

These activities translate into the practice of psychological first aid, the mental health equivalent of medical first aid. These activities capture the basic, largely non-technical, interventions necessary to address common psychological reactions to disaster and ideally prevent them from becoming psychiatric disorders.[12] [13] [14]

As symptoms often tend to abate with time, supportive management is generally advised in the initial phase, except when faced with life-threatening issues such as suicidality and homicidality, or recurrence of pre-existing psychiatric disorders. Vulnerable patients, including children, older people, and those with disabilities, especially need the aid of a supportive environment, and the healthcare provider, as part of the collaborative system, can refer to the people in the system who are responsible for food, shelter, and social connection. At times, experience suggests judicious short-term medication management may help relieve the symptom burden of some survivors, especially those with insomnia or significant anxiety, although the evidence base for this is still very limited.[17] [18] [29]

Critical incident stress management (CISM) has been conceptualised as a systematic approach to crisis that involves training before events arise, and debriefing after the events have occurred.[30] This latter activity, psychological debriefing, is the component of critical incident stress management that has been most thoroughly studied. It consists of a single-session intervention led by a trained professional, in which individuals or groups who have been recently exposed...
to a critical event review what happened and how they felt about it, as well as possible problems and symptoms that might arise in the future.

Several systematic reviews have been conducted to examine the effectiveness of CISM or psychological debriefing.[1] [2] [24] [31] [32] [33] [34] The Cochrane review, first completed in 2001 and published online in 2002, concluded that there was no evidence of a treatment effect.[32] The review recommended that psychological debriefing of individuals should cease, and that the use of the technique in groups required further study. A contemporary review of the literature has concluded that CISM is ineffective in most instances and might be harmful for vulnerable populations.[1] In practice, some people affected by disaster often appreciate the immediate chance to share their experiences in a debriefing, whether individually or as a group, and thus survivors or responders can and probably should be offered the opportunity to voluntarily participate. Psychological debriefings should not be mandatory. Group debriefings should be as homogenous as possible to avoid exposing members to new trauma material.

A limited number of studies have looked at debriefing in children.[35] Definitive conclusions about the benefits of interventions are lacking in these studies due to methodological limitations. Anecdotal evidence suggests that debriefing for children should be voluntary (with the consent of parents and caregivers), should not occur immediately after the incident, and should avoid re-traumatising by reliving experiences of the disaster.

Management of long-term mental health problems

An in-depth discussion of the long-term treatment of disaster-related disorders, such as PTSD, major depression, and alcohol use disorder,[10] is beyond the scope of this chapter. However, we will briefly review treatment of PTSD since it is likely the trauma-related disorder with which GPs and even many mental health professionals are least familiar. Cognitive behavioral therapy (CBT) is the most widely supported intervention for PTSD, and many related psychotherapies are derivatives of it, such as cognitive processing therapy and prolonged exposure therapy.[18] [24] [29] [34] [36] [37] CBT is a time-limited therapy that addresses very specific thoughts and behaviours related to the traumatic event. CBT specifically examines the dysfunctional beliefs and behaviours that may have predisposed a survivor to developing a condition such as PTSD.

Eye-movement desensitisation and re-processing (EMDR) is an intervention that asks trauma survivors to make back and forth eye movements or listen to bilateral tones as they focus on traumatic memories; it is recommended in many PTSD algorithms.[34] [37] Although much debate remains about whether the eye movements add anything to the therapy, they are theorised to aid in the processing and de-intensification of the memories. It has been used in many settings, including in work with Syrian refugees who had PTSD.[18] [38]

There is some evidence to support the use of CBT as part of the overall treatment of children with ongoing symptoms from exposure to non-relational trauma.[39] [40] One small sample study showed efficacy for short-term CBT use over a general supportive approach in adolescent victims of a natural disaster who lost their parents and developed PTSD or major depression.[41] Potential benefit has been identified for school-based psychotherapy interventions, which include CBT features, for children exposed to traumatic events.[39] [40]

There are conflicting recommendations about the primacy of medication treatments for symptoms of PTSD. The UK’s National Institute for Health and Care Excellence (NICE) 2006 guidelines state that drug treatment should not be used as a routine first-line treatment for adults with post-traumatic stress disorder (PTSD), and recommend drug therapy for those who do not benefit from psychological therapy.[42] The World Health Organization’s mhGAP humanitarian intervention guide likewise suggests only using antidepressant medications, such as selective serotonin uptake inhibitors (SSRIs) and tricyclic anti-depressants, if psychotherapies (such as CBT or EMDR) do not work or are unavailable (and also proscribe the use of any such medications in children).[29] On the other hand, the American Psychiatric Association’s last update of its clinical guidelines for PTSD in 2009 supports the use of SSRIs, as well as other antidepressants (at least in non-combat-related PTSD) and other psychotropic medications (e.g., atypical antipsychotics and anti-adrenergic agents, such as prazosin).[37] The US Food and Drug Administration has approved two SSRIs for use in PTSD, sertraline and paroxetine. Altogether, PTSD (and especially chronic PTSD) likely requires a sequence or combination of trauma-focused psychotherapy and medication.

Further sources of information include [The European Network for Traumatic Stress] and [EFPA: resources].
Role of systems management

It is crucial for mental health planning to be incorporated into pre-event planning, whether via professional societies, volunteer organisations, emergency operations agencies, or health departments. This requires much advocacy and persistence on behalf of mental health professionals but ensures that, when a disaster occurs, mental health services are both included and integrated.

As each critical incident unfolds, groups need to assess the particular incident and respond to critical needs.[43] [44] [45] These activities require that groups collaborate to plan and carry out decisions. These actions depend on the functioning of many natural systems, including family systems, religious groups, schools, and businesses. These groups extend well beyond the circle of first responders, for whom critical incident stress management was developed. Supporting and coordinating this complex array of social organisations, most of which want to contribute, is a central role of health and public health authorities both in planning for and acutely responding to critical incidents.[43] One exemplary cross-agency mental health response was the Resilience Coalition, which arose after Hurricane Katrina.[46]

The management of systems follows a set of activities similar to those in the Psychological First Aid Field Operations Guide. However, these activities are directed at creating a census of social groups, identifying their normal roles, and getting the groups to perform both their normal roles and the new roles they need to fulfil to recover from trauma.

In keeping with the pragmatic tone of psychological first aid, healthcare providers should by extension consider themselves humanitarians first and healthcare providers second. Likewise, disaster mental health professionals should consider themselves humanitarians first, healthcare providers second, and mental health professionals third.

Next steps

The team that developed the Psychological First Aid Field Operations Guide advocates research on positive adaptation and coping among survivors.[47] This is a marked shift from the symptom- or diagnosis-orientated research that dominates the disaster literature. The hypothesis is that promoting a sense of safety and speeding a return to comfort will help people feel that they are individually and collectively powerful and competent. It should also build skills so that people are better prepared for coping with other life problems, buoyed by their resilience rather than enfeebled by past tragedy. Novel research paradigms will be needed to test these interesting hypotheses. Screening instruments appear to have a major role to play in helping to identify people at high risk of illness and in need of treatment. These instruments will need to be refined for use across populations and after many kinds of event. Finally, there remains a need for more evidence to guide management of both the acute and long-term sequelae of traumatic events.
Online resources

1. The European Network for Traumatic Stress (external link)

2. EFPA: resources (external link)
Key articles


References


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