

## Australian Guidelines for the Treatment of Acute Stress Disorder and Posttraumatic Stress Disorder

# Specific Populations and Trauma Types Natural disasters and trauma reactions

This *Natural disasters and trauma reactions* information sheet addresses background issues and provides presentation, assessment and treatment recommendations for practitioners working with people affected by natural disaster. These recommendations are based on the systematic review of the international literature, and the expert opinion and advice presented in the Specific Populations and Trauma Types chapter of the *Australian Guidelines for the Treatment of Acute Stress Disorder and Posttraumatic Stress Disorder*. [www.phoenixaustralia.org/resources/ptsd-guidelines/](http://www.phoenixaustralia.org/resources/ptsd-guidelines/).

### Background issues

Disasters, by their nature, are large-scale events that impact upon significant groups within the community. There are a variety of natural and other types of disasters. Some, such as earthquakes and bushfires, affect a local community and impact on a relatively well-defined geographical region. Others may have a wider area of impact. The question of whether long-term natural disasters, such as severe drought or other climate change, can be considered a Criterion A event for PTSD is a matter of some debate. Most would agree that, while such events may have devastating psychological impacts on those directly affected, they do not involve the acute threat to life that characterises Criterion A events and which is a prerequisite in fear conditioning models. Individuals whose home community is affected are likely to experience multiple secondary stressors, particularly in the case of destruction of home, livelihood, infrastructure, and so on. For others, the traumatic experience will be limited to the disaster itself, for example, the thousands of tourists repatriated after the 2004 tsunami in South-East Asia. The nature of exposure to trauma in disasters varies considerably according to the type of disaster and the proximity of the individual to the causal agent. In addition, disasters are likely to have different effects upon the primary victims, compared with the impact on secondary victims (e.g., emergency services personnel who are required to become engaged in the search and rescue).

### Issues for service planners

Given the number of individuals affected, over a potentially vast geographic area, natural disasters pose a unique challenge to service planners. For natural disasters, there is some support for the utility of generic, community-based low level services as preferred sources of support that underpin the identification of needs and uptake of more specialist mental health interventions. The size of the population affected by a natural disaster is critical in determining the structure of the treatment services required to deal with the aftermath. Optimally, any treatment services should be linked to the existing health services in which disaster victims have confidence prior to the event. A frequent mistake is that planners presume there will be an early need for services when in fact there tends to be low rates of uptake of services in the immediate aftermath of the disaster, with a progressive increase in need over a period of approximately two years after the event. In the aftermath of the disaster, particularly in light of the evidence about debriefing, those responsible for disaster management should attempt to limit (or, at least, coordinate and control) the many volunteers who have emerged to provide 'post-disaster counselling' in the

aftermath of such an event. These individuals and their desire to assist can at times become a major issue in terms of the logistics and management of the large number of people converging on the disaster zone. It is important that the evidence about debriefing and acute treatments is provided to those involved in policymaking to ensure that the structure and nature of the services provide evidence-based interventions.

In the acute aftermath, psychological first aid is optimally provided in conjunction with the acute welfare needs of the population. Also, a decision should be made in the early recovery phase as to whether a systematic outreach, with an emphasis on screening, is to be instigated. If such a program is to be implemented, the high-risk groups should be identified and targeted rather than assuming that all those in the geographic area should be screened. High-risk groups will be those who have lost family or suffered major property destruction or sustained injury.

Disasters are an opportunity to address many longstanding deficiencies in the provision of mental healthcare in the affected populations. Therefore, these events are of considerable importance in ensuring that high quality evidence-based care programs are put in place. They provide an opportunity for upgrading and improving the quality of clinical care for the broader population. Individuals who have been previously traumatised may first present for treatment in the aftermath of a disaster. Therefore, the skill base of the clinicians intervening with a disaster-affected population should be capable of dealing with the broad range of traumatic events.

In disasters involving the loss of a large number of lives, specific consideration needs to be given to the issue of traumatic bereavement. In such instances, treating PTSD alone will not address the full extent of the person's predicament. The interaction between an individual's traumatic memories and the grief process needs to be addressed. Also, in large mass casualty situations, providing basic skills and training to the surgeons, doctors and nurses involved in care can be a method of disseminating information and basic principles to a large number of people.

Media coverage of disasters provides an opportunity to provide information to a large number of people. Thus, it is important to have information resources that can be made available to various organisations that have ongoing contact with those affected by the disaster. Such information sheets can assist in facilitating the linking of those in need with appropriate treatment services.

Personnel involved in rescue and recovery efforts, many of whom are likely to be members of the affected community, may also be distressed by their experiences during and after the disaster (see also the Emergency Services Personnel Information Sheet). Volunteers may be called upon to help in the disaster recovery, most of whom will lack the experience and training of professional emergency services personnel. This group tends to have mental health outcomes more similar to direct disaster survivors than professional response personnel,<sup>[1]</sup> and may not have access to organisational support in the event that they develop PTSD or related symptoms as a result of their experiences. In planning for mental health services in the aftermath of a disaster, the needs of the volunteer responders should therefore be taken into account.

## Issues for service providers

### Presentation

The immediate aftermath of a disaster involves a dramatic period where there is an attempt to mitigate the immediate physical threats and take steps to ensure the physical safety and wellbeing of the affected population. This involves the provision of emergency food and shelter and securing people's possessions if their homes have been destroyed. There is also the need to document and take stock of the losses incurred. In the immediate aftermath of these events there is a small group of people who become acutely distressed (and may even develop an acute distress disorder). However, the majority of people rise to the practical demands of the situation and their psychological distress is not an immediate issue.

There is often a long window of presentation to health services following such events. There is an expectation within communities that people who have sustained significant losses will experience a degree of enduring distress. However, once there is a relative degree of normality returning within a community, the experience of distress for some individuals will remain and may even intensify. It is at such times that presentations for care often increase in frequency. In other words, once the external demands begin to decrease and the obvious causes of distress lessen, individuals begin to acknowledge the possibility that their distress is out of keeping with the reality of their circumstances and may seek care.

Psychological distress in the aftermath of disasters can emerge in the form of family dysfunction, substance abuse, and conflict within the affected community. Due to higher levels of trauma exposure, individuals who are displaced by disaster may experience more significant distress.<sup>[2]</sup> Disasters not only trigger PTSD but a range of other possible presentations, such as adjustment disorders, major depressive disorder, and substance abuse. Some survivors will be

affected by physical injury, and a range of non-specific somatic symptoms is common. The perception of life threat has been found to increase risk for physical symptoms over a year after a disaster.[3] Physical complaints may occur with or without comorbid psychological symptoms.

One of the more characteristic presentations of PTSD in this setting is the considerable anxiety that the individuals will demonstrate if the threat of a similar event begins to emerge. Their triggered pattern of distress is a matter that is readily observed. Prominent hyperarousal symptoms after a disaster may be associated with greater functional impairment, more sick leave, and reporting of related issues such as social withdrawal, feelings of guilt, and lower life satisfaction.[4]

## Assessment

Unless the entire infrastructure of a community is destroyed, most disaster victims prefer to utilise the care networks that they are familiar with, focussing primarily on the local general practitioners. Given the delay in help-seeking, an opportunity exists for training local general practitioners, community health staff, and other primary care providers in the diagnosis and assessment of PTSD and other psychiatric conditions which are likely to emerge. It should also be recognised that some people would rather not seek care locally, fearing issues such as confidentiality and stigma in a small community. Thus, providers some distance from the area of destruction should also be aware of the potential for an increase in help-seeking.

Given the predictability of disorder, if the affected population can be well circumscribed, an outreach program involving screening should be considered for high-risk individuals. Such an approach should only be contemplated if the appropriate clinical services are in place to provide care to those who are identified. Simple brief screening measures, followed up with standard diagnostic tools such as the PCL, PTSD Symptom Scale Interview (PSS-I), and the Clinician Administered PTSD Scale (CAPS) for those who screen positive, are appropriate for use in this setting.

The assessments conducted in these populations should consider the fact that there will be a background pool of psychiatric morbidity within the affected community. The challenge is to define those individuals who have had an exacerbation or modification of existing symptom patterns, as opposed to the emergence of a new condition. This is relevant to the provision of treatment.

## Treatment

Limited treatment research has been conducted with this population, although the available evidence supports the relevance and applicability of standard treatment guidelines for PTSD. The key recommendations, graded A through D depending upon the strength of the evidence, are:

### Psychological interventions for adults

- For adults exposed to a potentially traumatic event, a one-session, structured, psychological intervention in the acute phase, such as psychological debriefing, should not be offered on a routine basis for the prevention of PTSD. **Grade B**
- For adults displaying symptoms consistent with acute stress disorder (ASD) or PTSD in the initial four weeks after a potentially traumatic event, individual trauma-focussed cognitive behavioural therapy, including exposure and/or cognitive therapy, should be considered if indicated by a thorough clinical assessment. **Grade C**
- Adults with PTSD should be offered trauma-focussed cognitive behavioural interventions or eye movement desensitisation and reprocessing. **Grade A**

### Pharmacological interventions for adults

- For adults exposed to a potentially traumatic event, drug treatments should not be used for all those exposed as a preventive intervention. **Grade D**
- The routine use of pharmacotherapy to treat ASD or early PTSD (i.e., within four weeks of symptom onset) in adults is not recommended. **Grade C**
- Drug treatments for PTSD should not be preferentially used as a routine first treatment for adults, over trauma-focussed cognitive behavioural therapy or eye movement desensitisation and reprocessing. **Grade B**
- Where medication is considered for the treatment of PTSD in adults, selective serotonin reuptake inhibitor antidepressants should be considered the first choice. **Grade C**

As noted above, various forms of psychological distress are seen in survivors of natural disasters and there is likely to be a wide range of clinical needs. For those who develop PTSD, the recommended treatments generally apply. There are however, a number of specific challenges, which include:

- Large numbers of people potentially requiring access to treatment over a prolonged period of time. It is important that evidence-based treatments for PTSD are available to these affected communities. This is a particular challenge in rural and remote communities where there is often a paucity of appropriately trained practitioners. However, distance need not necessarily be a barrier to care, with growing evidence suggesting that telehealth services can provide effective treatment for PTSD and other common mental health problems.[5-7] While still in their infancy, some internet-based treatments show promise, particularly if supported by low-level clinical care.
- Multiple members of the same family may be affected simultaneously, possibly impacting upon the pattern of symptomatic distress, for example, if both a husband and wife are suffering. Indeed, the reactions of other adults in the household may be more influential in the maintenance of PTSD symptoms than the impact of the disaster itself.[8] Treatment may need to address these relationship dimensions because they can serve to influence the patterns of withdrawal and avoidance.
- In cases where the individual with PTSD has suffered economic and social disadvantage as a result of the disaster, the circumstances in which they find themselves can serve as a constant reminder of their traumatic experience and thus complicate the treatment.
- Chronic PTSD has been associated with an increase in the perception of life threat at the time of the disaster. Cognitive therapy addressing realistic threat evaluation may be helpful for individuals whose perception of threat intensity is amplified over time.[9]

## Working with children

A range of factors influences the development of posttraumatic stress symptoms in children following a disaster, including gender, extent of destruction, perceived threat, and the loss of a friend or loved one. On the other hand, age has not been found to be associated with disaster-related posttraumatic stress.[10] However, age may influence children's understanding of disasters; for example, younger children may hold magical beliefs about disasters, such as storms having intentions.[11] Age may also influence children's understanding of their symptoms, with older children more able to identify disaster-related thoughts as unwanted and intrusive.[12]

School-based interventions are effective in facilitating children's recovery following a disaster. Usual school activities should be resumed as soon as possible; in addition to the benefits of the re-establishment of routine, the school community encourages engagement in appropriate memorial rituals and pro-social activities.[13] School-based interventions are also well placed to promote social connectedness, low levels of which are associated with more severe PTSD symptoms in children following a disaster.[14]

Natural disasters are somewhat unusual in that they are experienced by all members of the family. In addition to their experiences during the disaster itself, children are also affected by their parents' response to disasters.[15] Thus, it is important to consider the family unit as well as the individual when assessing and treating mental health problems. There is some evidence to suggest that mothers' and fathers' psychopathology may play differential roles in influencing their children's mental health; children's depression and posttraumatic stress symptoms may be more closely related to their mother's depression and father's posttraumatic stress symptoms respectively.[16]

Children and young people with PTSD resulting from a natural disaster should be offered a course of trauma-focussed cognitive behavioural therapy adapted appropriately to suit their age, circumstances and level of development.

## Recommended reading

Drabek, T. E. (1986). *Human system responses to disaster: An inventory of sociological findings*. New York: Springer-Verlag.

Journal of Clinical Psychiatry, 67(Supplement 2). (2006). *After the Tsunami: Mental health challenges to the community for today and tomorrow*.

Kaniasty, K., & F., N. (1999). *The experience of disaster: Individuals and communities sharing trauma*. In R. Gist & B. Lubin (Eds.), *Response to disaster: Psychosocial, community, and ecological approaches*. Ann Arbor: Brunner/Mazel.

Norris, F. H., Friedman, M. J., & Watson, P. J. (2002). 60,000 disaster victims speak: Part II. Summary and implications of the disaster mental health research. *Psychiatry*, 65(3), 240-260.

Ursano, R., Fullerton, C., Weisaeth, L., & Raphael, B. (2011). *Textbook of disaster psychiatry*. New York: Cambridge University Press.

Although not a focus of these Guidelines, in the context of disaster recovery, readers may be interested in the following resources that are oriented towards psychological first aid (PFA):

- Australian Psychological Society/Red Cross: PFA – An Australian Guide (available from [www.psychology.org.au](http://www.psychology.org.au))  
National Centre for PTSD: PFA Field Operations Guide (available from [www.ptsd.va.gov](http://www.ptsd.va.gov))
  - o Note that both the above sites have links to an online training program in PFA developed by the US National Center for PTSD.
- Australian Psychological Society: Psychosocial Support in Disasters ([www.psid.org.au](http://www.psid.org.au))
- World Health Organisation: PFA Guide for Field Workers (available from [www.who.int/publications](http://www.who.int/publications))

## Source and contributors

This information was taken from the Natural Disasters section (p.163-169) of the Special Populations and Trauma Types chapter of the *Australian Guidelines for the Treatment of Acute Stress Disorder and Posttraumatic Stress Disorder* [www.phoenixaustralia.org/resources/ptsd-guidelines/](http://www.phoenixaustralia.org/resources/ptsd-guidelines/). The Natural Disasters section was developed by Phoenix Australia in collaboration with Andrew Coghlan, National Manager Emergency Services, Red Cross Australia and Professor Alexander McFarlane, Director, Centre for Traumatic Stress Studies, University of Adelaide.

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