



The psychosocial consequences of the Canterbury earthquakes

A briefing paper

10 May 2011

Many people directly experiencing a major natural disaster such as an earthquake will experience psychosocial effects – both individual psychological effects impacting on how people feel and social effects impacting on how they relate to each other. Indeed, such effects are inevitable and a normal part of human psychology. However, there is considerable variation in individual and social responses. Nevertheless, it is fair to state that the potential exists for the emotional effects of disaster to cause as great a degree of suffering as do the physical effects such as injury, destruction of infrastructure and loss of income. In fact, they are often inter-related. Indeed, it is clear that recovery is primarily judged in terms of people feeling that they are coping with their lives and livelihood, not just in physical terms.

The problem is that every disaster is somewhat different. The Christchurch series of earthquakes is more complex than (say) a hurricane in that there is an inherent threat in the continuing aftershocks that can last for many months, exposing people to recurrent acute stress, while at the same time chronic stress is imposed by the on-going human, economic and social costs. A distinct feature of this event is that the initial M7.1 earthquake caused sufficient damage to induce significant traumatic stress in its own right and then, rather late in the recovery cycle, the M6.3 earthquake returned many people back to the beginning of the cycle.

These aftershocks may well extend the recovery process. Some of the population may experience on-going feelings of insecurity, uncertainty, loss of trust in scientific information, continued hyper-vigilance and disturbed sleep. As we know, this disaster is also characterized by considerable numbers of people leaving the area. This population will also show psychosocial consequences of dislocation that may need to be addressed.

Classically, four phases are described after a disaster, although separating them out as distinct phases with sharp transitions is somewhat artificial:

(1) An initial **heroic phase**, in which people help and don't count the "costs".

(2) A **honeymoon phase** in which people see some help arriving and feel that the situation will improve.

(3) A third phase which is somewhat awkwardly and unhelpfully termed the 'disillusionment phase' in which people realize how long recovery will take and become angry and frustrated. I would prefer to call it the **long-term recovery and rehabilitation phase**.

(4) Finally people return to a new equilibrium, but we must understand that this is a long-term process with no clear endpoint in that things can never return to exactly what they were before the disaster, although people will find a 'new normal'.

Phases 1 and 2 in Christchurch are over and we are now into phase 3, which can be expected, based on the scientific literature, to last for most people between 4 and 9 months. But the length and severity of this phase can be affected by the nature of the on-going response.

What is clear from the field of disaster science and scholarship is that most people are resilient and will recover in time; however, a subset, likely to be in the order of about 5% (or more, depending on how the recovery process progresses), will have on-going significant psychological morbidity requiring professional help. A comprehensive and effective psychosocial recovery programme needs firstly to support the majority of the population who need some psychosocial support within the community (such as basic listening, information and community-led interventions) to allow their innate psychological resilience and coping mechanisms to come to the fore, and secondly to address the most severely affected minority by efficient referral systems and sufficient specialised care. Insufficient attention to the first group is likely increase the number represented in the second group. A comprehensive approach such as this, with an emphasis on resilience, community participation and well-being, assists in mitigating the critical phase 3. Some groups, as discussed below, are more vulnerable.

Issues associated with the 'long-term recovery' phase

While many people will be relatively resilient, many others may demonstrate the emotions of numbness, depression, despair and anger. These are normal responses to exceptional

circumstances, and such people should not be seen as unwell. Despite the fact that in most people these emotions will slowly diminish, in a minority they can be exhibited for months if not years. Accumulated experience warns us to expect peaks in distress on anniversary dates.

These are inevitable responses, irrespective of how the physical recovery process in Christchurch plays out. However, there is an important interplay between physical and psychosocial recovery and this has implications for the perception of the physical recovery process – for if the physical recovery process is seen as community endorsed then the negative emotions may be more likely to be mitigated and the positive emotions of hope enhanced.

The key issue is a psychological sense of empowerment. The earthquake was a disempowering event – an event that individuals had no control over and that leaves them essentially with no control over how they live. The need to regain some sense of some control over one's life is central to the recovery process. Disempowerment essentially reinforces the initial trauma.

No set of recovery measures can entirely prevent the emotions of distress, be they anger, numbness, despair or frustration – rather, the broader community needs to accept that they have a role in supporting people through this process. The agencies involved cannot ignore, and indeed have not been ignoring, these likely responses and need to ensure the availability of an appropriate range of support services for those affected. This has been shown to take some time, and responses need to be in place over a considerable period, even though at a reduced level from the initial response.

There is a danger that the media and political processes could aggravate these responses by magnifying and focusing on them but, on the other hand, the potential for externalities such as deficient supportive and agency responses to impede emotional recovery cannot be ignored. It is this interplay between individual responses and externalities (such as more aftershocks, delayed responses to provision of key needs, lack of local community participation in the recovery planning process, or unbalanced reporting) that might create heightened anger or other emotions.

Because of the potential aggravating role of externalities (those arising from the media and the political process), there is value in communicating widely about the range of expected responses and recognition of the distress involved, so that they are understood and

reactions can be better interpreted. Hopefully these external agencies understand the need to act in a way that does not impede the recovery process. It should be understood that local representatives of the media will themselves be personally affected and going through the recovery process, potentially challenging their professional objectivity.

Analogies may be drawn from responses to acute bereavement and from the well documented post-traumatic stress syndrome (PTSD), but similar variation is documented in both of these. Multiple emotions are experienced over many months after bereavement. While these are popularly described as a staged cycle of recovery, in reality no such staging has been validated. Rather, over the subsequent months the emotions of denial, survivor guilt, anger and depression are exhibited to greater or lesser extent followed by gradual recovery. Similarly, PTSD symptomology is variable – it may have acute or delayed onset with the key emotions being those of numbness, avoidance and persistent arousal.

High-risk groups

Women (especially mothers of young children), children, and people with a prior history of mental illness or poor social adjustment appear to be more vulnerable than other groups. Vulnerable groups evolve over the recovery period and this needs monitoring from those working in the field. Effective ways of including these groups may include non-clinical intervention services facilitated through schools and other organisations working with families, and ‘check-ins’ of people already known to mental health services.

Young children (ages 1-5) may exhibit fear of separation, strangers, “monsters” or animals, withdrawal, or sleep disturbances. Older children (ages 6-11 or so) may engage in repetitious storytelling or play that re-enacts parts of the disaster. Sleep disturbances, fear of the dark, irritability, aggressive behaviour, angry outbursts, separation anxiety, school avoidance, and general changes in behaviour, mood and personality may appear. Children of all ages are strongly affected by the responses of their parents and other caregivers. “Protecting” children by sending them away from the scene of the disaster, thus separating them from their loved ones for extended periods, can add to the trauma of the disaster.

Adolescent behaviour becomes increasingly similar to adult responses and may include greater levels of aggression, defiance, substance abuse and risk-taking behaviours. Support from teachers and peers and exposure to positive news stories are protective. Adolescents are particularly unlikely to seek out counselling.

Addressing tensions and conflicts

In every disaster there is an inevitable tension between the desire for an immediate response and the need for planning (by multiple layers of authority) and risk reduction. This tension aggravates the situation and creates opportunities for externally driven exacerbation of symptoms. Anger and frustration are inevitable and endogenous. It is wrong to respond to this anger in a defensive way.

It would appear that key to minimising this phase is the promotion of local empowerment and engagement by working closely in a collaborative way with the affected population in co-coordinating and co-leading the response effort. If the population do not sense this is happening, then the phase may well be longer and the symptoms of anger and frustration more intense. A feeling of self-efficacy and community efficacy assists the population in reactivating their coping mechanisms. Local governance, empowerment and ownership have been shown to facilitate recovery. The inevitable tensions and conflicts in achieving this are obvious (long-term versus short-term, public versus private, local versus national interests) and cannot be avoided – rather, they have to be openly handled with sensitivity.

It follows that, from the psychosocial perspective, those involved in directing the recovery should create governance structures that understand and actively include community participation and enhance individual and community resilience. Such approaches will be most likely to be effective in re-establishing coping and functioning communities.

It appears important to try to give people back some sense of control and agency over their lives. Key to recovery is firstly “normalisation” – that is, getting people in some way back to business, social life, schools, church and a sense of community, even if in temporary housing or locations. Secondly, there also needs to be normalisation of the responses to people’s varied psychological reactions – that is, for there to be a wide understanding that “most emotional reactions are usual reactions to abnormal or difficult situations” and are not reflections of being mentally unwell or weak. This requires education and orientation on the expected reactions and provision of access to available resources.

For withdrawn and depressed individuals, multiple strategies are needed (such as “John Kirwan-style” TV slots, alert neighbourhood visitors or community-led events). It is important that such messages are about functional changes and how lives progress rather than the symptoms *per se* (the “John Kirwan” series of messages on depression are an excellent exemplar in another domain).

Surveillance and monitoring by local organisations and GPs is an important preventative step, provided that these monitors are appropriately briefed. Non-clinical psychological intervention at this stage can help by:

- avoiding the labelling of normal people as ‘patients’, thereby reaching a wider range of people;
- providing information on the normal range of psychological effects people can expect themselves and their families to experience following a major disaster;
- providing information on when further psychological assistance may be helpful and how to access it; and
- helping to restore the social connectedness and community life necessary for long-term recovery.

The expected emotional reactions to the earthquake are such that they can prevent people from taking on new information as they are preoccupied by trying to manage their responses to the threat. Thus, many people will need repeated exposure to information and resources – often this is not recognized as a need. Open and honest information dissemination is key; mythology and rumours are the enemies of resilience.

Perhaps some 5-10% of the population in the most affected areas will need more specialised professional help at some stage. Formal psychological debriefing techniques should not be used as evidence shows that they can reinforce the problem. And it is critical that the public messages are supportive, not threatening.

The most important ameliorating factors for the recovery phase appear to be:

- recognising that the situation is distressing and not easy for the affected population;
- being explicit about how governance arrangements will facilitate local engagement and empowerment;
- recognition by the community of the conflict that is inherent between the desire for rapid physical recovery and the difficulties that planners face. This conflict is inevitable and real – the key is to involve the community openly in resolving it.
- providing information on expected post-disaster emotions;
- providing community monitoring and good information on access to support services;

- providing clarity over reconstruction and rehabilitation plans:
 - It is better for those in decision-making roles to be truthful and say “we do not know” rather than obfuscate.
 - It is important to set timelines for when things will clarify and information will be provided, and to meet those timelines.
 - Those involved in managing the recovery process must understand that recovery in the end is about people’s lives, not just buildings, although clearly getting a functioning house, infrastructure and workplace are core to recovery. They must be credible in demonstrating that understanding and they must be willing to activate community empowerment and engagement.
 - Recovery planning must be broad-based and on-going. For example, re-establishing community services such as sports clubs is important.

Psychosocial issues in the ‘new normal’ phase (months to years)

Most people make a good recovery from the psychological and social effects of significant disasters.

Giving early psychosocial support to the population can avoid some acute stress reactions becoming chronic and allow some extreme reactions to be picked up and referred earlier. Around 5% to 10% of the population, or their immediate others, are likely to consider that their long term psychological health has deteriorated following a disaster of this size and may seek or require further intervention. This population will show a varied pathology: depression, high-anxiety states, as well as some post-traumatic stress syndrome states. Unresolved post-traumatic stress syndrome and similar conditions can lead to epigenetic intergenerational effects. Factors can be identified that may increase the risk of long-term psychological symptoms and there should be monitoring within the context of the Christchurch community so that trends are identified early

Known risk groups include families that have suffered bereavement or a personal crisis (which may be unrelated to the disaster), individuals with pre-existing mental health conditions, and children whose parents have unresolved mental health issues.

Stigmatisation of mental health issues, including post-traumatic stress disorder and related conditions, can lead people to suppress symptoms and make healing more difficult.

The response to date

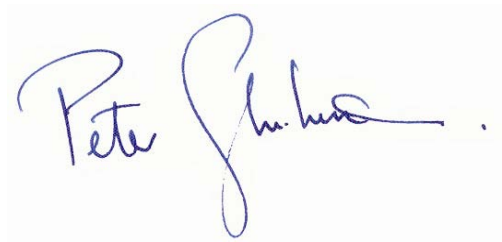
The Ministry of Social Development (MSD) is the lead agency, with the support of the Ministry of Health (MoH), for the planning and delivery of psychosocial support after national-level events. In Christchurch, MSD leads the response as chair of the Psychosocial Response Committee, which is a cross-government committee including representatives from MoH, Canterbury DHB, Christchurch City Council and numerous other agencies, itself supported and advised by national-level groups. The Committee has followed evidence-based principles of disaster planning, essentially as described above, in its management of the immediate crisis in February 2011 and the subsequent planning for the medium- and long-term phases of recovery. In particular, it is ensuring that psychosocial support is incorporated into other recovery initiatives, such as provision of temporary accommodation and the rebuilding of school communities. More broadly, counselling and psychosocial support is being made available to affected people in Christchurch, and to those who have moved to other parts of the country. Demand for psychosocial support and mental health care at the primary level has been increasing and is being met by a variety of methods. The capacity and functionality of specialist mental health services, as well as alcohol and other drug services, is being monitored. Best practice is being followed in the design of communication campaigns aimed at helping individuals and families to cope with the after-effects of the earthquakes.

Some final comments

It is inevitable that psychosocial issues will emerge in the present phase of recovery and rehabilitation. It is impossible to be more precise as to how the pattern of emotions will proceed as there are too many externalities that could affect it, and there is much individual variation in resilience. However, we can be certain that anger, frustration and despair will be exhibited by a significant percentage of the population at least through the rest of this year and that between 5 and 10% will need significant on-going psychological support after that date. These are inevitable emotional responses and cannot be avoided. However, this paper identifies some potential aggravating factors that can be managed and suggests ways by which psychological health can be ameliorated.

Managing the psychosocial response is complex and cannot be separated from managing the rebuild of Christchurch. Tensions between different agendas are inevitable in any major disaster and are likely to be greater here given various factors such as the continuing high

public and media focus, the fact that the disaster is in a large urban area, the electoral cycle, the economic costs of a disordered Christchurch business community, and the on-going reminders in the form of aftershocks. There is a need for ongoing human and organisational resources, perhaps even those of a conflict resolution team, as well as a long-term commitment to ongoing psychosocial support. Local media representatives are themselves are going through these processes, which places much responsibility on editors. Key to success will be to convince people that the focus on the physical rebuild is not an end in itself but is designed to allow people to rebuild their lives and livelihood.

A handwritten signature in blue ink that reads "Peter Gluckman". The signature is written in a cursive style with a large initial 'P' and a long, sweeping underline.

Sir Peter Gluckman

Acknowledgements: The field of disaster scholarship is growing and in New Zealand is primarily represented by a subset of the National Hazards Platform led by Dr David Johnston at Massey University (Wellington Campus). I thank this group for briefing me on their experience in other disaster situations and for reviewing a draft of this paper. Additional research by way of a literature review was undertaken by Ms Sarah Gibbs in my Office. I also thank officials from the Ministry of Social Development, the Ministry of Health and Canterbury District Health Board who provided information on their response in Christchurch.