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RESEARCH ARTICLE

Rolling with the shakes: an insight into teenagers' perceptions of recovery after the Canterbury earthquakes

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Natural disasters are harmful worldwide events that inflict multiple psychosocial impacts on disaster-exposed individuals. A significant proportion of affected individuals are teenagers (13–18 years old) who, compared with adults, have been historically overlooked in disaster research. The literature is particularly sparse concerning teenagers' recovery from natural disasters, specifically what recovery means to them and the contributing factors towards their positive recovery. Therefore, the aim of the current study was to gain deeper insight into this largely unexplored area by conducting five focus groups with teenagers (16–18 years) who experienced at least one of the Canterbury, New Zealand, earthquakes since and including the initial September 2010 earthquake. This study directly asked teenagers about their recovery over the three years after the initial earthquakes, with data being analysed using thematic analysis. Two main themes were identified: (1) perceptions of recovery, with three sub-themes (i) knowledge and being less frightened, (ii) talking about the earthquakes and (iii) shift in perspectives; and (2) contributing factors to recovery, with three sub-themes (i) participation in the community response, (ii) returning to school and (iii) the rebuild of Christchurch. These factors provide insight into how we can better support the recovery process for disaster-exposed teenagers to reduce long-term distress.

Keywords: Canterbury earthquakes; natural disasters; teenagers; recovery; personal experiences

Introduction

Natural disasters can be defined as:

> A situation or event which overwhelms local capacity, necessitating a request to a national or international level for external assistance; an unforeseen and often sudden event that causes great damage, destruction and human suffering. (Guha-Sapir et al. 2014, p. 7)

Most people exposed to a natural disaster will experience, to at least some extent, the psychological impact of that event. A significant proportion of those experiencing these potentially distressing impacts are children and teenagers (Peek 2008). A normal psychological response to a disaster includes acute distress symptoms such as behaviour problems, anxiety, fear, grief, mood symptoms, feelings of helplessness and somatic symptoms (Shaw et al. 2007). John et al. (2007) found that two months after the 2004 Southeast Asian tsunami, 79% of older adolescents (ages 15–18) reported symptoms of post-traumatic stress disorder.

One aspect of recovery involves psychosocial recovery, through which the psychological impact of a trauma is dealt with (Lindell 2013). In terms of duration, Norris et al.'s (2002) review of 160 disaster studies concluded that disaster effects could be fairly enduring with peak symptoms and effects occurring within the first year post-disaster but improving over time. With children specifically, child responses (see Nader et al. 1990) have suggested that post-disaster symptoms

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tend to decrease considerably by nine to 14 months.

A number of factors can influence a young person's rate of psychosocial recovery. For instance, psychosocial recovery may take longer if the disaster inflicted a significant threat to life (Yule & Udwin 1991; Yule 1992) or caused widespread devastation and bereavement and had a major continuing impact on family functioning (McFarlane et al. 1987). Family support is essential for the successful recovery from childhood trauma (Vernberg & Vogel 1993) due to the restorative nature of interpersonal relationships (Wieling & Mittal 2008). According to Mutch & Gawith (2014), schools can contribute towards long-term recovery through the emotional processing of experiences, and through activities that acknowledge students' voices. In addition, Wolmer et al. (2011) found a teacher-based preventative intervention implemented three months prior to traumatic exposure (i.e. rocket attacks), significantly reduced post-traumatic stress and mood disturbances in fourth- and fifth-grade students.

Previous literature has suggested a variety of factors that can influence teenagers' post-disaster recovery. However, one area of disaster research that remains largely unexplored is teenagers' perceptions of recovery and what it means to them (Anderson 2005), as well as factors that contribute towards their personal recovery. According to Peek (2008), by incorporating young people's voices into decision-making processes, a more holistic community-based recovery plan would be established. It is for these reasons the current study aimed to investigate the views and opinions of teenagers exposed to the major earthquakes that hit the Canterbury region of New Zealand on 4 September 2010 at 0435 h, and again on 22 February 2011 at 1251 h. This paper specifically focuses on teenagers' retrospective views on their personal recovery, including what recovery meant to them and the factors that contributed towards it. It is expected that these findings will broaden our understanding of the needs of teenagers after disasters, which can then be used to better inform post-disaster recovery plans.

Methods

Design

This exploratory study employed focus groups with teenagers, conducted three years after the initial September 2010 earthquake.

Recruitment

Seven secondary schools in the Christchurch city region of Canterbury were selected based on a non-probability purposive sampling strategy. Once the Massey University Human Ethics Committee granted ethical approval, selected schools were contacted via email, informing them about the study and requesting their assistance in contacting potential participants. Of these schools, four agreed to be involved in the research project (see Table 1). Three of these schools approached students directly, while the fourth used its school's intranet network.

Participants

All 28 participants were students (Years 11–13) who had experienced at least one of the Canterbury earthquakes since and including September 2010. Thirteen participants were male and 15 female, all aged between 16 and 18 years old (about 13–15 years at the time of the initial earthquake). The majority of participants were European (77%), followed by Pacific Islander (13%) and Asian (10%). Five focus groups were conducted (see Table 2).

Procedure

The five focus groups, each of 50–60 minutes' duration, were conducted on school premises in September 2013. Each discussion began with the researcher introducing herself and explaining the purpose of the research. Privacy was emphasised as well as the right to ask further questions and to withdraw from the discussion at any stage. Participants were informed that the conversation was going to be video- and audio-recorded and were then asked to sign a consent form and confidentiality agreement. The researcher asked specific

Table 1 Description of consenting schools.

School	Location	Type of school[1]	Gender	Authority[2]	Decile rating[3]	Roll (Years 11–13)
1	East	Secondary	Co-ed	State	2	262
2	West	Secondary	Boys	State	9	749
3	West	Composite	Girls	Private	10	326
4	West	Secondary with intermediate	Girls	Private	10	361

[1]Secondary = Years 9–13; Secondary with intermediate = Years 7–13; Composite = Years 1–13.
[2]State = fully state funded; private = privately owned and operated.
[3]The lower the decile of a school, the higher the proportion of students from low socio-economic communities.

guiding questions, which were open-ended and semi-structured and were used flexibly depending on the group context.

The focus group discussions were transcribed verbatim by the researcher using both audio and video recordings, and all names and other identifying information were removed.

Data analysis

The transcripts were analysed using thematic analysis based on Braun & Clarke's (2006) six-phase procedure.

In order to assist with the coding process, the transcripts were imported into the online software program Dedoose. The coding (i.e. organisation of basic sections of data into meaningful groups [Tuckett 2005]) was primarily data-driven. That is, an inductive approach was used and the themes identified were closely linked to the data (Patton 1990). The researcher coded the entire data set and Dedoose automatically collated data extracts within each code. A long list of codes (n = 165) was produced.

Themes were identified based on a semantic approach that focused on the surface meanings of the data (i.e. the content of what participants said was taken at face value), rather than an approach involving a detailed linguistic analysis (i.e. syntax, morphology, micro-pauses, etc.). The data were reviewed, and themes, sub-categories and overlapping themes were identified. Themes were refined, combined or discarded, while codes that did not seem to work in already-existing themes were relocated or discarded from the analysis, as suggested by Braun & Clarke (2006). Ultimately, and based on Patton (1990), an attempt was made to theorise the significance, broader meanings and implications of the patterns identified in the data. This paper is particularly focused on one important area of interest resulting from this analysis—teenagers' perceptions of recovery.

The qualitative approach employed here aimed to elicit and describe the meanings surrounding participants' experiences, and focused primarily on the meanings they attached to their experiences. Participants provided their views within a group discussion; the interactive nature of this situation meant the number of participants who endorsed each theme or sub-theme was unable to be calculated.

Results and discussion

Two main themes were identified. The first concerned sub-themes that contributed towards participants' perceptions of what recovery was, including being more knowledgeable and less frightened, talking about the earthquakes, and shifting perspectives. The second concerned participants' experiences that contributed towards their recovery, including personal involvement in the community response, returning to school routine and normality, and witnessing the rebuild. These two themes and associated sub-themes are discussed below.

Participants' perceptions of recovery

Being more knowledgeable and less frightened

For some participants, recovery was about being less fearful of earthquakes, as well as being

Table 2 Description of focus groups.

	Number of participants	Gender	Ethnicity	Year group(s) involved	School decile[1]
Group 1	5	Girls	NZ European	Year 12	10
Group 2	6	Co-ed (4 girls, 2 boys)	NZ European, Pasifika	Years 12–13	2
Group 3	6	Girls	NZ European	Years 12–13	10
Group 4	6	Boys	NZ European, English	Years 11–13	9
Group 5	5	Boys	NZ European	Year 12	9
Total	28				

[1]The lower the decile of a school, the higher the proportion of students from low socio-economic communities.

knowledgeable about them. With the latter, some participants referred to earthquake facts (e.g. causes, consequences); however, a majority referred to emergency management and preparedness. That is, being aware of what was needed to reduce the risk of harm in the event of another earthquake (e.g. emergency supplies) and/or what to do in the days or weeks after it hit (e.g. a safety plan or plan of action).

> You can't keep holding on to being scared of earthquakes, otherwise you're going to be like that for the rest of your life. (Female, Group 3)

> Yeah I think recovery is like knowing like bits and bobs of earthquakes like knowing what they are, like how to um manage yourself and your family once an earthquake's happened and stuff and like just having a plan. (Female, Group 2)

Being prepared and knowledgeable about earthquakes appeared to lessen teenagers' fear and, over time, contributed to their recovery through providing greater understanding, comfort, reassurance and self-confidence. This is consistent with Ayers et al.'s (1996) four-factor model of coping, particularly active coping. The latter refers to cognitive decision-making, restructuring, seeking understanding and direct problem solving. Gathering information and seeking understanding are both strategies that actively and directly focus on the stressful event in an effort to manage the individual's emotional response. Specifically, seeking understanding involves the individual trying to better understand the stressful situation or to find meaning in it. Having a greater understanding of what was going on in different aspects of their lives (e.g. homes, school, city rebuild) may have also given teenagers a greater sense of control. This is because by having information, and thus an improved understanding, teenagers (and their families) were in a better position to begin planning their next step, be it with school (e.g. closures, homework) or home (e.g. insurance, relocation).

Talking about the earthquakes

Participants also viewed recovery as being comfortable with talking and/or hearing about the earthquakes:

> Like feeling ok about your situation. For a long time whenever it got mentioned or whenever I talked about it, I would get really really upset and not really want to talk about it. (Female, Group 1)

This idea of being able to talk about the earthquakes without getting upset is understandable in the context of repeated exposure and habituation. That is, over the past three years, participants were likely to have been exposed to substantial earthquake-related talk in the media, at school and in everyday conversations. Due to such repeated exposure and with time, it is reasonable to assume that teenagers' anxiety responses began, at least partially, to lessen (i.e. habituate)

(Westbrook et al. 2011). However, for some teenagers, such frequent reminders of the earthquakes may have worsened or prolonged negative psychological impacts, especially in the first few months. Eventually feeling OK with talking about the earthquakes is also consistent with the stages of processing a traumatic experience. That is, during the 'working through and processing' stage, it is typical to not want to discuss the event (Saari 2005). However, once through this stage, talking about the event typically becomes more likely.

Overall, this theme highlighted the importance of talking for teenagers and their recovery. This is consistent with Mutch & Marlowe (2013) who explained that talking helps to put the event into perspective, creates distance between the past and present, and allows individuals to begin processing the event so as to make sense of it.

Shifting perspectives

Participants reported that over time, recovery was about people and communities moving forwards, as well as accepting that life and the city were never going to be like they were before the earthquakes. That is, instead of fighting the inevitable changes, becoming overwhelmed, and wishing things were like they were pre-earthquakes, acceptance involves being open to the changes, not necessarily liking or wanting them but just accepting the fact they are happening (Harris 2009).

> I think [recovery] means remembering what happened but moving on, like I'm not expecting them to do everything straight away and have everything brand new but it's remembering what we had and being like that was really lovely, remembering the people we did lose and taking them with us, but moving on and making something new. (Female, Group 3)

Participants also suggested recovery was seeing the positives of the earthquakes, rather than focusing on the negatives.

> I mean it's kind of like with the whole recovery thing, you stopped looking at all the negatives that had come. You started looking at the things that were positives about it and you just started to kind of realise that yeah it sucked it had happened here but we are also getting a lot more than we ever would've got if it didn't happen [e.g. a programme called Excel was introduced post-earthquake, which provided extra tuition and food for Pacific Island students]. (Female, Group 1)

This shift in perspective is consistent with children and teenagers after the Southeast Asian tsunami (2004), who also reported the use of positive thinking as a coping strategy 10 months post-tsunami (Jensen et al. 2012). Positive thinking is an emotion-focused strategy, which helps individuals cope by regulating their emotional responses and reducing their stress (Lazarus & Folkman 1984).

Factors contributing to participants' recovery

Personal involvement in the community response

For many participants, being involved in the community response was either something they did or something they wanted to do after the earthquakes. Participants indicated that helping others helped with their own personal recovery:

> It was just almost therapeutic in a way to be able to help other people, cos you just felt like everyone just needed to work together. (Female, Group 3)

This idea of helping out as being therapeutic is consistent with literature stating that by acting to help others, attention is diverted away from the trauma itself and on to making things better. Little is known specifically about what young people actually do during the response or what they have contributed in the past (Anderson 2005; Peek 2008), nor is much known about what motivates them to volunteer after natural disasters (Peek 2008). However, in the context of the current study following the Canterbury earthquakes, teenagers reported primarily helping with clean-up efforts (e.g. shovelling liquefaction and silt, clearing away damaged chimneys) and making and/or distributing food to those who needed it. There were also volunteer groups, for example, the Student Volunteer Army, which consisted of thousands of students aged 16 years and above who, among other things, helped to clean up liquefaction.

In terms of teenagers' motivation to help, a majority of reasons identified appeared to function to improve their mental well-being. That is, it helped to make their situation easier to cope with, improved their mood or lowered their distress. In other words, for those participants capable, volunteering appeared to be a protective factor. For example, by helping, participants were able to have positive rewarding experiences, which then made them feel good about themselves and gave them a sense of purpose:

> [The student volunteer army] gave us an organised feeling of being able to do something that was right and that was doing something, like a sense of purpose, and so in whatever form that is, getting that sense of purpose. (Female, Group 2)

This is similar to behavioural activation with depressed individuals, and the idea that by increasing rewarding experiences, life situations will be improved and depressive symptoms alleviated (Martell et al. 2013). In line with this idea, volunteering could be a preventative action. That is, by being involved in the disaster response, the rewarding experiences could help to improve individuals' moods before depressive symptoms occurred or worsened.

Other motivations identified by participants included the fact that helping gave them something to do, and distracted them from their negative thoughts, stress and paranoia. This is consistent with Wisner's (2006) claim that young people often have time to give after disasters.

> [Helping] was really helpful just to kind of put it all behind you and to feel like you were actually doing something as opposed to just sitting there and waiting for another earthquake to happen. (Female, Group 1)

Helping also gave participants a sense of control and some perspective on their own situation, consistent with Kaniasty & Norris' (1999) findings that helping others not only provided a sense of control, but also helped people find meaning in the experienced catastrophe.

> For me it kind of felt like you could actually control something 'cause obviously you can't control the earthquakes, but being able to help someone and comfort them, it's like, OK I can do something to improve the situation for someone else. (Female, Group 1)

Returning to school routine and normality

Participants indicated that the normality and routine of school contributed towards recovery:

> I think that was the best thing, [school] just tried to keep a normal structure, just trying to bring it all back to normal and stuff, get back into routine and that kind of helped people. (Male, Group 4)

This finding is consistent with evidence suggesting the return of students to a steady educational setting and the re-establishment of a consistent, predictable routine is a central feature of recovery for young people (e.g. Heft 1993; Fothergill & Peek 2006). This is because by returning to their typical roles and routines, teenagers would be able to regain some familiarity in their lives and in turn, re-establish feelings of stability and security (Boyce 1981). Returning to the familiarity of a school routine would also allow students to resume their typical roles and encourage them to believe that normal patterns of life would eventually return (Vernberg & Vogel 1993).

Seeing the rebuild

Participants explained that seeing the rebuild of their city contributed to their recovery. Specifically, the erection of new buildings and reopenings gave participants a sense that the identity of Christchurch was returning. They also highlighted the positive impact that small improvements had on their lives.

> Yeah it's just like heaps of little parts make a big inconvenience, so like as little parts free up you start to think 'oh this is getting better, this is getting better' and like, so say a road on the way to school is fully fixed, you're like this is way better, not having to avoid all these like detours and that, so yeah just all these little things. (Male, Group 5)

Seeing such progress would likely have a positive impact on teenagers' mental well-being, giving them hope and a sense of moving forwards. However, for many participants the pace of the rebuild was too slow, thus preventing them from moving on.

In addition, due to the slow pace, there continued to be a lack of youth-focused spaces or activities in Christchurch. This is consistent with the 2013 Youth Wellbeing Survey conducted between September and December 2013 (Canterbury Earthquake Recovery Authority [CERA] 2014), which reported that 25% of respondents (i.e. Cantabrians aged between 12–24 years) indicated that the loss of spaces and places continued to have a negative effect on their everyday lives and a major negative impact on their well-being.

Overall, it appears that rebuilding a disaster-struck city contributes towards teenagers' recovery by giving them a sense of moving forwards, which then links to what their perception of recovery is.

Summary and implications

Overall, the findings highlighted two main themes: what teenagers' perceptions of recovery were and what factors contributed towards their recovery. In total, six sub-themes were identified, with three falling under the idea of teenagers' perceptions of recovery and the remaining three under contributing factors. The implications of these themes are discussed below.

Perceptions of recovery

First, for some participants, recovery involved 'being knowledgeable' about earthquakes. This referred to not only facts about the causes of earthquakes but also knowledge about what to do before and after an earthquake hits (e.g. preparedness and a plan of action). The possible comfort, reassurance and confidence this knowledge and preparedness provided may have then helped to reduce the emotional impact of the earthquakes (e.g. fear, uncertainty). Therefore, it seems beneficial to provide teenagers with information that helps them better understand the disaster event and their situation, and to perhaps find meaning in it. In line with this idea, it is suggested that adults should be open with teenagers regarding information. However, the delivery of this information should be developmentally appropriate, and support should be provided to assist teenagers in processing and understanding it. Schools could also assist youth in this regard by communicating and discussing the earthquakes, including both factual information (e.g. causes and consequences of earthquakes) and personal experiences. It would be important for teachers and parents to also receive support so that they were capable of providing this information and discussing it. Overall, distributing information and allowing for open communication could potentially reduce teenagers' confusion and uncertainty about their current and future situation, as well as enhance their understanding of the event and the repercussions of it. This could then help teenagers to make better sense of their experiences, contributing to their ability to move forwards.

It may also be useful for schools to educate their students about both the physical and psychological impacts of a natural disaster before it hits. Such disaster preparedness by schools could help to give youth some sense of control and planning (Margolin et al. 2010). In fact, Ronan et al.'s (2008) review showed children who had received school-based hazard education programmes, displayed such things as reduced levels of fear and more realistic perceptions of risk compared with their peers.

Second, participants highlighted the idea that being comfortable with 'talking' about the earthquakes was an indicator of recovery, therefore emphasising the importance of communication. Based on these findings, it is suggested that adults (e.g. parents, teachers) should keep checking in on youth, letting them know they are available to talk, but not pushing them into it. This conclusion was also made by Fothergill & Peek's (2006) study which found it was helpful for adolescents to talk but only when they needed to.

Lastly, participants suggested a 'shift in perspective' and explained that recovery involved

seeing the positives arising from the disaster event, rather than focusing on the negatives. Therefore, it could be recommended that adults (e.g. parents, teachers) and other youth try to encourage teenagers to see these positives, such as the opportunity to build a new city, to learn new things and to form connections with youth.

Contributing factors to recovery

A majority of participants highlighted their desire 'to help' after the earthquakes, be it with shovelling liquefaction or making and handing out food. Participants also reported a number of personal benefits of helping, all of which potentially contributed towards their recovery. Overall, these findings emphasise the importance of giving teenagers the opportunity to be involved in a disaster's response, and in turn, support the idea of organising youth-focused volunteer groups in the event of another natural disaster (i.e. for ages 13–18 years). This is consistent with Anderson's (2005) reports about the active involvement of youth.

Second, participants noted how returning to the 'normality and routine of school' contributed towards their recovery. This is consistent with past research indicating that returning to a stable educational setting is key to young people's recovery (e.g. Fothergill & Peek 2006). For this reason, it seems beneficial to reopen schools as soon as possible. However, in saying this, closing schools for one or two weeks after a disaster may allow teenagers to begin processing the event, without adding the extra demands of school. Such time is likely to be beneficial for the mental well-being of teenagers, particularly if they receive the necessary support from family, friends and/or psychological services. Once students return to school, a balance needs to be reached between returning to a regular school routine and modifying the schedule for those who continue to be psychologically affected and who may find the regular routines too demanding (Dyregrov 2004).

Lastly, according to participants, 'seeing the rebuild' of Christchurch was an important factor that contributed towards their idea of recovery. However, for a majority of participants, the rebuild was too slow and thus a source of frustration and an inhibitor of teenagers' full recovery. For this reason, it is recommended that in the future event of a natural disaster, attempts be made to conduct small rebuild projects earlier (i.e. within the first year) so as to signify to youth some progress and sense of moving forwards. This is consistent with participants' reports about how small improvements made a large difference. Based on the findings, it would also be beneficial for teenagers' recovery if youth-focused spaces or places were built, thus providing them with a source of entertainment and distraction and, in turn, contributing positively to their mental well-being.

Overall, based on the perspectives of disaster-exposed teenagers, this study has identified several themes that have contributed towards teenagers' post-disaster recovery. It is expected that by better understanding these themes, insight is gained into how we can better support this recovery process, thereby reducing the longer-term distress of future disaster-affected teenagers.

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References

Anderson WA 2005. Bringing children into focus on the social science disaster research agenda. International Journal of Mass Emergencies and Disasters 23: 159–175.

Ayers TS, Sandier IN, West SG, Roosa MW 1996. A dispositional and situational assessment of children's coping: testing alternative models of coping. Journal of Personality 64: 923–958.

Boyce WT 1981. Interaction between social variables in stress research. Journal of Health & Social Behavior 22: 194–195.

Braun V, Clarke V 2006. Using thematic analysis in psychology. Qualitative Research in Psychology 3: 77–101.

Canterbury Earthquake Recovery Authority (CERA) 2014. Youth wellbeing survey 2013. Christchurch, CERA. 8 p.

Dyregrov A 2004. Educational consequences of loss and trauma. Educational and Child Psychology 21: 77.

Fothergill A, Peek L 2006. Surviving catastrophe: a study of children in Hurricane Katrina. In: Natural Hazards Center ed. Learning from catastrophe: quick response research in the wake of Hurricane Katrina. Boulder, Institute of Behavioral Science, University of Colorado. Pp. 97–129.

Guha-Sapir D, Vos F, Below R, Ponserre S 2014. Annual disaster statistical review 2013: the numbers and trends. Brussels, CRED. 7 p.

Harris R 2009. ACT made simple: an easy-to-read primer on acceptance and commitment therapy. Oakland, New Harbinger Publications. 10 p.

Heft L 1993. Helping traumatized parents help their traumatized children: a protocol for running post-disaster parents' groups. Journal of Social Behavior and Personality 8: 149–154.

Jensen TK, Ellestad A, Dyb G 2012. Children and adolescents' self-reported coping strategies during the Southeast Asian Tsunami. British Journal of Clinical Psychology 52: 92–106.

John PB, Russell S, Russell PSS 2007. The prevalence of posttraumatic stress disorder among children and adolescents affected by tsunami disaster in Tamil Nadu. Disaster Management & Response 5: 3–7.

Kaniasty K, Norris F 1999. The experience of disaster: individuals and communities sharing trauma. In: Gist R, Lubin B eds. Response to disaster: psychosocial, community, and ecological approaches. Philadelphia, Psychology Press. Pp. 25–62.

Lazarus RS, Folkman S 1984. Stress, appraisal and coping. New York, Springer. 150 p.

Lindell MK 2013. Recovery and reconstruction after disaster. In: Bobrowsky P ed. Encyclopedia of natural hazards. Netherlands, Springer. Pp. 812–824.

Margolin G, Ramos MC, Guran EL 2010. Earthquakes and children: the role of psychologists with families and communities. Professional Psychology: Research and Practice 41: 1–9.

Martell CR, Dimidjian S, Herman-Dunn R 2013. Behavioural activation for depression: a clinician's guide. New York, Guilford Press. 220 p.

McFarlane AC, Policansky SK, Irwin C 1987. A longitudinal study of the psychological morbidity in children due to natural disaster. Psychological Medicine 17: 727–738.

Mutch C, Gawith E 2014. The New Zealand earthquakes and the role of schools in engaging children in emotional processing of disaster experiences. Pastoral Care in Education 32: 54–67.

Mutch C, Marlowe J 2013. Lessons from disaster: the power and place of story. Disaster Prevention and Management 22: 385–394.

Nader K, Pynoos R, Fairbanks L, Frederick C 1990. Children's PTSD reactions one year after a sniper attack at their school. American Journal of Psychiatry 133: 306–312.

Norris FH, Friedman MJ, Watson PJ 2002. 60,000 disaster victims speak: part II. Summary and implications of the disaster mental health research. Psychiatry 65: 240–260.

Patton MQ 1990. Qualitative evaluation and research methods. 2nd edition. Newbury Park, California, Sage. 532 p.

Peek L 2008. Children and disasters: understanding vulnerability, developing capacities, and promoting resilience-an introduction. Children, Youth and Environments 18: 1–29.

Ronan KR, Crellin K, Johnston DM, Finnis K, Paton D, Becker J 2008. Promoting child and family resilience to disasters: effects, interventions, and prevention effectiveness. Children, Youth and Environments 18: 332–353.

Saari S 2005. A bolt from the blue: coping with disasters and acute traumas. London, Jessica Kingsley Publishers. 51 p.

Shaw JA, Espinel Z, Shultz JM 2007. Children: stress, trauma and disasters. Florida, Disaster Life Support Publishing. 141 p.

Tuckett AG 2005. Applying thematic analysis theory to practice: a researcher's experience. Contemporary Nurse 19: 75–87.

Vernberg EM, Vogel JM 1993. Task force report part 2: interventions with children after disasters. Journal of Clinical Child Psychology 22: 485–498.

Westbrook D, Kennerley H, Kirk J 2011. An introduction to cognitive behavioural therapy: skills and applications. 2nd edition. Thousand Oaks, California, Sage Publications. 448 p.

Wieling E, Mittal M 2008. JMFT special section on mass trauma. Journal of Marital & Family Therapy 34: 127–131.

Wisner B 2006. Let our children teach us! A review of the role of education and knowledge in disaster risk reduction. Bangalore, India, Books for Change. 25 p.

Wolmer L, Hamiel D, Laor N 2011. Preventing children's posttraumatic stress after disaster with teacher-based intervention: a controlled study. Journal of the American Academy of Child & Adolescent Psychiatry 50: 340–348.e2.

Yule W 1992. Post-traumatic stress disorder in child survivors of shipping disasters: the sinking of the 'Jupiter'. Psychotherapy and Psychosomatics 57: 200–205.

Yule W, Udwin O 1991. Screening child survivors for post-traumatic stress disorders: experiences from the 'Jupiter' sinking. British Journal of Clinical Psychology 30: 131–138.