Fallen through the cracks? The role of second responders in the Christchurch emergency: A Wellington perspective

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Abstract

This paper explores the deployment of second responders from the Wellington region to Christchurch during the civil emergencies of 2010 to 2011. Both primary and secondary data were analysed using a realist thematic approach. It was revealed that there were a group of people, known as second responders - employees of local authority and governmental organisations, who 'fell through the cracks' of the emergency management framework. This paper argues that the definition, identification and training of second responders have to be prioritised as a part of emergency management activities. This exploratory study provides the basis for further research into the role of second responders and the challenges confronting both them and those responsible for their deployment.

Keywords: *Christchurch, earthquakes, second responders, emergency management*

New Zealand's position on an earthquake fault line has led to it being referred to as the "shaky isles", in both the popular press and academic literature (Blanchard, 2007; Gilbert, 2008; Johnston, Becker, & Paton, 2012). Yet, as Dowrick and Rhoades (2011) contended, that prior to the Christchurch 2010 and 2011 earthquakes, there have been relatively few major earthquakes in New Zealand's recent history, particularly in terms of seismic events located in highly populated areas. Dowrick and Rhoades (2011) went on to state that the last event with a significant number of fatalities occurred in Napier in 1931. Thus, as Johnston, Becker and Paton, (2011) contended, this situation had led to a high level of complacency and a limited understanding about earthquake risk throughout New Zealand. However, on September 4 2010 at 4.35 a.m., this complacency was shattered as, Christchurch City, New Zealand, experienced a magnitude 7.1 earthquake. The quake was located on a previously unidentified fault line at Darfield (40 kilometres west of Christchurch City), at a depth of only 10 kilometres (Geonet, 2012).

As this earthquake occurred in the early hours of the morning, there was no loss of life directly attributed to the event. However, injuries did occur and its location and severity meant there was considerable damage to essential services and infrastructure. In response, municipal authorities and governmental organisations from around New Zealand sent employees to the Christchurch region to assist in the restoration of essential services. These employees were referred to as second responders. For the purposes of this study, a second responder is defined as: a worker who operates during the response and recovery phases of an emergency once the area has been made safe by the first responders (Laughey, 1989). Second responders may include construction workers, water and sewage workers, building inspectors and staff who provide aid to those affected by the emergency (Betan, 2010; Laughey, 1989).

Then, on 22 February 2011, a magnitude 6.3 earthquake occurred just 10 kilometres south-east of Christchurch, again on a previously unidentified fault line (Geonet, 2012). Many buildings that had remained standing after the 7.1 September 2010 earthquake had been weakened. The damage caused by the initial quake and the subsequent aftershocks, in excess of 10,000, meant that they could not withstand this 6.3 event and consequently they collapsed. The timing of the earthquake at 12.51 pm (lunch-time) meant many people were in the central business district streets and in their office buildings. Consequently, there were fatalities and a greater number of injuries than occurred in the September earthquake. The substantial damage that occurred impelled the city authorities to request help from international emergency rescue and recovery teams (first responders) to concentrate on finding those people trapped in buildings together with the recovery of bodies. Again, municipal authorities and governmental organisations from around New Zealand sent second

response teams to the area to assist with the restoration of essential services. These responders operated within the framework of the Civil Defence Emergency Act 2002 (Ministry of Civil Defence and Emergency Management, 2014). This Act sets out the requirements for emergency management in New Zealand and provides for the all the phases of the emergency management framework and has at its core the emphasis on regionalism at a local government level. As a result, all emergency management phases are the responsibility of local government and related local agencies.

Accordingly, this study explores one aspect of the response to the Christchurch earthquakes – the challenges confronting managers who were responsible for the deployment of secondary responders from the Wellington area to Christchurch from 2010 to 2011. This background context informed the following research question: What barriers, problems and dilemmas were encountered by emergency management staff when deploying second responders to Christchurch during the emergency?

The emergency management framework and its role

The following definition of emergency management was adopted for the purposes of this study: "emergency management is the managerial function charged with creating the framework within which communities reduce vulnerability to hazards and cope with disasters" (Dowrick & Rhoades, 2005, p. 4).

When managing in a crisis emergency managers are guided by the principles of an emergency management framework that comprises four key phases (Blanchard, 2007; Petak, 1985; Sandhu, 2002; Subramaniam, Hassan, & Faridahwati, 2010; Waugh & Streib, 2006). First, is the *reduction* phase, which involves stakeholder groups, for example, politicians, emergency professionals and community groups, deciding how to mitigate the health, safety and welfare risks to a society affected by an emergency. This is achieved, in part, by the implementation of a risk reduction programme. Second, *preparedness and planning*, which consists of developing a response plan and training first responders to save lives and reduce disaster damage. Third, the *response* phase, that is concerned with the provision of emergency aid and assistance, thereby reducing secondary damage and maximising the recovery phases. Finally, phase four, recovery, which includes providing immediate support early during the recovery period,

restoring vital systems to minimal operational levels. The extended recovery process includes restoring the community's quality of life to at least the same level as it was before the emergency. Wilding (2011) wrote, that for this recovery phase to be fully effective then resilient communities are vital. The development of community resilience allows the affected communities to grow the skills, knowledge and ability required so people are able help themselves during an emergency. This includes the identification of the networks of professionals who are able to respond to meet the social, economic and health needs of the community (Paton, Johnston, & Houghton, 1998)

Coleman (2005) went on to assert that while each of the phases of the emergency management framework is unique, they frequently overlap each other, particularly the latter two. However, the effectiveness or otherwise of an emergency management response is often determined in the prevention and preparedness/planning phases. As stated by White (2011, p. 253): "The quality of these two phases determining how well resources within a society can be mobilised to ensure an effective response, thereby facilitating an optimal recovery from a disaster."

Current thinking ascribes equal priority to all the elements of the emergency management framework (Wilding, 2011). Therefore, to ensure an effective response to an emergency it is imperative that resources and responsibilities within the emergency management discipline are planned and co-ordinated both efficiently and effectively (Coleman, 2005). Yet as E. Lagadec (2009) argues, the networks of stakeholders that exist in the 21st Century and who take part in the planning, response or recovery phases add new levels of complexity during crises such as that experienced in Christchurch.

Subsequently, Johnston et al. (2012) drew attention to evidence in international research that emphasized the importance of strong local government capacity and a cohesive system of public, private and volunteer groups in the response and recovery phase. That is, there is a cohesive system of networks where the sharing of knowledge and skills between the different agencies and groups is of the highest quality (Britton, 2001). Thus, the argument of P. Lagadec (1993) was acknowledged, where he stated that emergency management research must not only provide answers for those involved crisis management. It should also broaden horizons and focus thought, so that an awareness of the problem is not the

only outcome. Accordingly, emergency management research has a responsibility to contribute to the body of knowledge so that the strategic responses to an emergency event are improved (Lagadec, 1993; White, 2011). Therefore, the aim of this study is to add to the body of knowledge by assisting those involved in the response and recovery phases of an emergency to improve his or her skills. Consequently, contributing to the overall effectiveness of the emergency management discipline.

Research Design

Conducted in late 2011 and early 2012 this exploratory study was situated in the qualitative paradigm. The impetus for the study arose from a conversation held between a colleague of the researcher and a Wellington manager involved in the deployment of second responders to Christchurch. At this time there was a high level of research activity focussing on events in Christchurch. It became evident that the perspectives of people from outside the Christchurch region may not have been captured.

A qualitative approach was deemed the most appropriate in which to situate the study because it provides a range of methodological tools that enables the researcher to explore the participants' perceptions and experiences about the topic under study (Leininger, 1985; Munhall, 1989; Munhall & Boyd, 1993). Munhall and Boyd (1993) went on to argue that an individual's knowledge is specific to a given situation or context, thus leading to the existence of a diversity of realities. As the aim of the study was to report the experiences, meanings and reality of the participants, a realistic thematic approach as proposed by Braun and Clarke (2006) was used to analyse the data. Thematic analysis is an inductive form of analysis and involves undertaking data collection and analysis simultaneously, the researcher moving between transcripts, memos, notes and the research literature (Patton, 2002). The analysis process results in the researcher identifying analysing and reporting patterns (themes) within data (Braun & Clarke, 2006). As Braun and Clarke (2006) stated, a theme captures something important about the data in relation to the research question and represents patterns of response on the part of the research participants.

Ethical challenges within qualitative studies

Qualitative studies present challenges for researchers with respect to ethical requirements. One of these is the establishment of trust between the researcher and interviewee. As Wilding (2011) argued, if the respondents do not trust the researcher, the data could be of a lesser quality. Additionally, as Miles and Huberman (1994) contended, in qualitative research it is difficult to achieve total anonymity as the researcher knows the identities of the participants. This is particularly pertinent in New Zealand. As a small country with comparatively few organizations in a specific sector, it would be easy to identify individual respondents, even in larger research contexts. Thus, the importance of trust was heightened by the relatively small size of the emergency management community and the ease with which participants could be identified.

It is relevant that this study was situated in the ethical paradigm of utilitarianism. As outlined by Miles and Huberman (1994) utilitarian ethical considerations are based on the premise of informed consent, avoidance of harm, and confidentiality. The purpose of which is to enhance the trust relationship between the researcher and the participant, with the aim of maximising the quality of the data and ensuring the anonymity of the participant.

Consequently, each participant was provided with an outline of the purpose of the research and their rights within established guidelines for research involving human subjects. Each participant signed a formal permission document consenting to participation in the research. Verbal permission was also obtained from each participant to record the interview on a micro-cassette. All research participants were advised that their participation was voluntary and that they had the right to withdraw their consent (i.e., either verbally or in writing) at any time. None did.

In addition to the confidentiality agreement, a verbal outline of the confidentiality processes was provided at the start of each interview. Participants were informed that: (i) any identifying names would either be deleted or given codes in order to maintain anonymity; (ii) all transcripts would be stored in a locked filing cabinet in a locked room; (iii) any computers holding notes and analysis were password protected; and (iv) all publications and reports were written so that participants remained unidentified.

Sample and Data Gathering

The sample size was 8 people, comprising managers who were directly involved in the deployment of staff to Christchurch. The size of the sample was constrained by the numbers of managers in the Wellington region

who were involved in the deployment. As a result of the initial social conversation, a pilot interview of one and a half hours was undertaken with the aim of exploring the issues which had been identified. This interview provided the basis for the development of the interview questions and was coded as part of the analysis process. The remaining primary data was obtained through a semi-structured interview process. A further six interviews of between one and a half hours and three hours were conducted. Two of the interviews had two participants, an emergency manager and a human resources (HR) executive. All interviews were conducted in the Wellington region. All interviews were taped and transcribed immediately thereafter. Notes were also taken during the interviews and incorporated into the analysis process.

Secondary data was obtained from two sources. The first was the empirical literature informing the emergency management discipline. The second was from publicly available information, such as the relevant legislation, news and social media reports, emergency management policies and practices, municipal communications, official reports, organisational debriefing documents. As New Zealand is a comparatively small research environment, documentation was also sourced from Australia, Europe and North America. The use of this material enabled the setting of a context, thereby,

guiding the collection of the primary data. All secondary data was analysed concurrently with the collection of the primary data.

In addition, the researcher attended emergency preparedness awareness sessions conducted for community groups and members of the diplomatic corps. These sessions were conducted by Wellington emergency management professionals with the aim of building community resilience. The focus of the sessions were on preparedness of the local communities with the aim of building resilience thereby enhancing a more effective recovery phase of an emergency. A total of five sessions which lasted between one and a half and two hours were attended and full notes were taken throughout each session. These notes were also analysed thematically. The concurrent data collection and analysis followed the six-steps recommended by Braun and Clarke (2006). These are: familiarisation with the data; the generation of initial codes; searching of themes; reviewing of themes; defining and naming of themes; and producing the report.

Data Analysis and Results

The data analysis identified a core theme 'recognising the role of second responders'. This theme explained the concerns expressed by the research participants about the apparent lack of provision for second-responders in New Zealand emergencies. There were two near-core themes that contributed to the formation of this core theme: a) the shortfall in legislative provision; and b) the human resource implications. It is these themes and their relationship to the core theme that are the focus of this paper.

The first identified sub-theme related to a shortfall of legislative provision in the emergency management legislation. These concerns were thematically analysed into the following minor themes: issues of proximity; issues of distance; the legal status of second responders in an emergency; and currency of current legislation. Table 1 shows how the responses of the interviewees were coded into these minor themes.
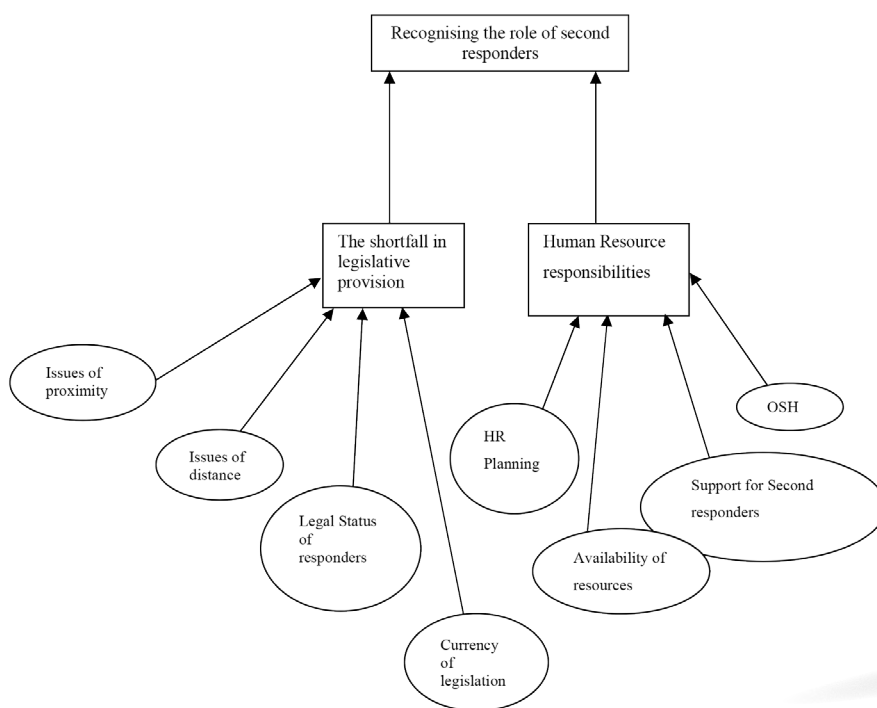

Figure 1. Coding for Thematic Analysis

Table 1

A Sample of the Coding of Interviewee Responses for the Sub-Theme Shortfall in Legislative Provision

Sub-Theme– Legislative shortfall	Coding Items from thematic analysis
Issues of proximity – the planning focussing on events occurring within close geographic proximity	"We have good relationships with our neighbouring people and councils —perhaps we didn't know them as well as we ought of"
	"We knew those [colleagues]from further afield not well at all"
	"Used to being close to the situation – we didn't really think of having to move people and equipment to the South Island"
	"Planning and everything had focussed on local area or the North Island"
	"Everything in the past occurred mainly in the North Island it was relatively easy to deal with"
	"Communication was easy when dealing with local people because we knew them"
Issues of distance – related to challenges arising from managing events happening some distance from the home office	"Getting supplies down there was an issue especially in the early stages – we had to make sure that they had everything they needed as we could not rely on there being the basic necessities"
	"All planes booked – difficulty getting things there by road, train tracks damaged"
	There appeared to be no provision in the legislation to guide people in how to operate
	"Had to be quite stern at times and tell people that is what was happening and we will argue about it later."
Legal status of responders – related to the lack of provision for second responders. No clear guidelines second responders on their role	At time it was unclear who had the authority and power to authorise some things
	"Unclear exactly what the role of our people was under the legislation"
	"Responded immediately" – therefore legislative provisions may not have covered these people – "we were trusting common sense on many occasions"
	Emphasis on trained civil defence people and 'first responders'
	"While managers sending people may have had emergency training – the people we sent in the main did not- we were not sure what their responsibilities were"
Currency of legislation – the need to review legislation not only emergency management legislation to ensure it covers second responders	Questions raised as to the currency of present legislation
	Emphasis on first responders
	"No provision for people outside the emergency management framework who ended up working in the disaster zone"
	"Unsure if this situation had ever been thought about before Christchurch"

Table 2

A Sample of the Coding of Interviewee Responses for the Theme HR Implications

Sub-theme – HR Responsibilities	Coding items from thematic analysis
HR Planning - the on-going HR planning needs re deployment, rotation and skills	How do you ensure local services do not suffer because everyone was in Christchurch
	"How to we ensure rotation of staff to make sure they don't get stressed – something that became evident during the first event"
	"Plan the movement of staff to ensure business as usual in Wellington"
	"How do we determine who has the experience and resilience to operate successfully down there"
	"Became evident that we had to get more involved in people's personal lives – we could not have people down there with stress problems."
OSH – reliance on 'business as usual' OSH training. No specialised second responder training	"there was an over-reliance on prior 'business as usual' OSH training"
	No specialist training for second responders
	"Think of everything as a potential hazard – we had to rely on their common sense"
	Unanticipated event so there has been no prior provision in current OSH legislation
	Spoke of people running on adrenaline and not taking appropriate breaks
	"Rotations to Christchurch being too long – in hindsight we should have given them more breaks"
Physical Resource Availability – This sub-theme related primarily to equipment required to support staff	"the need transport equipment to Christchurch – loaded up trucks with tents and water"
	"Provision of cash because ATM's were not working"
	Safety equipment for staff not available immediately
Support for second responders – ensuring that second responders are appropriately supported during their deployment.	Support for families remaining in Wellington
	"Reassurance especially after major aftershocks – communication"
	Ensuring deployment is a stress free as possible, for example "ensuring reimbursement of expenses"

The second sub-theme was identified and named as those issues related to HR implications. The minor themes contributing to the identification of this theme were coded and named as: HR planning concerns; occupational health and safety (OSH) issues; physical resource availability; and support for second responders. These themes are outlined in Table 2.

As stated previously, the networks of second responders had not been clearly defined and that they themselves were unclear as to their role within the bounds of the relevant legislation. The following discussion outlines these themes more fully.

Discussion

The consensus of the participants was that, while New Zealand has a robust Civil Defence and Emergency Management system and strong relationships exist between the different parties, second responders were one group who were considered to *have fallen through the cracks*. Moreover the different professional associations and networks that ended up being involved in the second response had not been identified nor their role defined prior to the Christchurch earthquakes. Consequently, a different set of challenges arose for those managers who were responsible for the deployment of these employees.

The unrecognized role of second responders
The coding undertaken as part of the thematic analysis identified the presence of an overarching theme – *The unrecognised role of second responders.* The lack of recognition of the different groups of second responders and their deployment to an emergency zone was spoken of with concern by all the participants. The data analysis suggested that the role of Civil Defence Volunteers was recognised and provision was made for their training and development. However, there was no explicit legislative provision that provided for the identification of, and the subsequent training and development, of second responders. Nor was there any evidence of legislative provision for the role of second responders and guidelines for their deployment. One manager whose organization sent teams of employees to aid in the government welfare response commented:

> *...I guess in hindsight what would have been good is to have had established group of people that will always be involved in a response to a national disaster*

Deployments to Christchurch included: building inspectors; the engineers responsible for the repair and maintenance of water and sewage pipes; electrical lines specialists; and public sector administrative workers. The majority had not received any training or development in emergency management nor could they be deemed to be first responders. One manager who had travelled to the Christchurch region stated:

> *...if you had told me the day before that I would be up to my ears in liquefaction in the sewers of Christchurch within the next 72 hours I would have laughed at you. If you had told me I would do twice within six months and the ground would still be shaking I would have told you, 'you were mad'.*

While the secondary responders in this study were not directly involved in the rescue phases in Christchurch, some were sent to the emergency zone within 48-72 hours of the major earthquakes. Therefore, there was the potential for these employees to be involved in the overlap between the response and recovery phases. Furthermore, on-going aftershocks meant that these employees were often present in Christchurch during the larger events and were often were deployed for extended periods of time or on repeat occasions. Yet at the same time those managers responsible for the deployment of second responders were not aware of any guidelines or established best practice readily available to guide their decisions.

The legislative shortfall
The data analysis suggested a perceived gap in the current emergency management legislation in New Zealand. At the time of the research the provisions for emergency management were covered by the Civil Defence Emergency Management Act, 2002. The thematic data analysis indicated that the existing legislative frameworks were not extensive enough to deal with the scale of the emergency that occurred in Christchurch. This is evidenced by how quickly the Government introduced and passed legislation under urgency with a specific focus on the recovery needs of Christchurch. Specifically, at the time of this study, the legislation did not recognise the role of second responders in the event of their being deployed to an emergency such as that which occurred in Christchurch. One comment made by an experienced local government manager related to how, prior to the earthquakes, the different professional networks did not know each other well:

… because we don't work that closely together because we are mostly concentrating on our day jobs so one of the lessons we certainly learnt from this was that we must get closer together … we just need to know each other – we do know each other considerably better now than we did

While this is an expressed ideal – during this research project there was no evidence that this 'getting closer together' had occurred. It was believed that the provision of legislative requirements would ensure that this collaboration would occur.

The analysis of the secondary data revealed that this situation is not unique to New Zealand. The legislation defining who are secondary responders and providing guidelines for their management and protection was sparse. The one recent legislative initiative sourced was The Skilled Trades Second Responders Act of 2009 introduced into the United States Congress. The purpose of this Act was to establish a comprehensive national system for skilled construction workers to assist first responders in the event of a disaster. At the date of writing of this paper, the status of this Act is listed as 'died', noting that it has been referred to committee. While there is evidence of empirical research, such as that of Laughy (1989), the majority of work able to be sourced as part of this study was that developed by practitioners (Betan, 2010; Claussen, 2011; New York Consortium for Emergency Preparedness Continuing Education, 2006). This work occurred subsequent to the 9/11 attacks and were an attempt to ensure preparedness for the future.

The thematic analysis indicated that there had been no prior identification of the networks of professionals who would become second responders during an emergency, such as that which occurred in Christchurch. Consequently, there were issues that arose around communication and the efficient deployment of resources. One HR manager observed somewhat wryly:

…certainly industry groups were to called upon to provide them with support who then went out through their networks to their contacts outside a structured system and created all sorts of confusion because there are requests coming here and from there all over the place.

This comment was one of several received of this nature. Comments that indicated that there was a need for a more formal structure to manage second responder activity. Formalised provision under the legislation would provide the second responder networks with a clearer role definition and communication channels and enhance the ongoing networking opportunities; all with the stated aim of improving the effectiveness of the recovery process.

The second body of legislation that was deemed to impact on the care and protection of second responders was that pertaining to occupational health and safety. Examination of organisational policies and practices indicated that the majority had some form of provision to ensure the safety of staff. However, these policies and practices were based on the presumption the staff were 'in situ' within the organisation's confines or were focussed on the immediate geographic location of the organisation. One manager stated:

…accommodation was an issue - particularly with this disaster we struck –there was no accommodation … so we ended up actually compromising and sending people into accommodation where there were limited sanitary provision or running water or stuff but they went into it knowing that.

However, this manager went on to state that none of the staff that were sent to Christchurch had received additional occupational health and safety training other than that covering their workplace normal day to day activities.

The thematic analysis identified an expressed concern regarding the difficulties of managing staff in an emergency some distance from their home base:

...was the logistics of travel – travel was disrupted as well – we had some people going across on the ferry doing everything they could to get there – so our immediate response was predominately from South Island based staff – because of travel …we struggled with getting people out of the North Island into the South Island because that was what everyone was trying to do…

The analysis identified a distinction between what could be termed proximal and distal emergency management. The terms are defined in this way: Proximal emergency management is that which is undertaken to address an emergency in the location of the emergency management specialists. Distal emergency management is that which is undertaken to address an emergency that occurs outside of the immediate locale of those planning for an event. In this paper these terms were used in reference to second responders only. There was no evidence that

any scenario planning had been undertaken addressing the distal management of second responders.

Human resource management and the care of second responders

The second near-core theme pertained to the role of human resource management in caring for second responders. The importance of appropriate use of human resources was identified early in the data analysis process:

One of the big lessons our first round was manpower planning – call it HR call it whatever you like – actually managing the manpower that you are deploying and putting on standby… the first one [earthquake] most of it I did myself and it was very stressful.

The interviewees spoke of how, in hindsight, some of the more obvious challenges were the most unanticipated, for example, ensuring the provision of safe food, water and accommodation. Semi-structured probing questions resulted in the interviewees acknowledging that this was a situation where prior scenario planning would have been an advantage. Some of the early secondary responders did not have access to motel or hotel accommodation as one manager stated:

In the case of the February event we had to provide them with tents and sleeping bags

One comment summarising the accommodation situation was:

It wasn't typically in our approved accommodation – because they [hotels] had suffered damage...so only those properties that had been assessed as being safe were used... this did not mean that some of them did not have sanitary issues like having to go next door to use a toilet because the toilet in this particular room doesn't work.

As the aftershocks continued, the practicalities of keeping employees in the field became of concern for those in Wellington. Not only was it stressful for the staff who were deployed to Christchurch, it was also stressful for those who remained in Wellington. It was imperative that services provided in the Wellington region did not suffer. Accordingly, all interviewees spoke of how staff that remained in Wellington were sometimes stretched beyond capacity. This was one area where prior scenario planning could have assisted in establishing rotation schedules and support structures to meet the needs of staff in both Christchurch and Wellington. In some

instances it was as basic as ensuring that there was enough resources remaining in Wellington, for example:

...if they had a water main burst up here or something similar and a vital bit of equipment they needed was sitting down in Christchurch and then there is water gushing and we can't repair it… or a truck with specialist equipment is sitting in Christchurch doing nothing yet it is needed here urgently.

However, this concern was not confined to physical resources. Human resources were also factored into the planning equation. The rotation of staff and ensuring that staff were not left in the Christchurch region for unnecessarily long periods of time became an issue for managers. This included ensuring that they did receive adequate rest breaks. A summarised comment from a public sector manager was:

...someone is [at work] at 6 a.m.… …and is driven on adrenaline and sometimes they were not getting back until 8 -9 at night and they were doing that all week –I guess we could have managed that better either by putting more people down there or making sure people took appropriate breaks.

For some groups of second responders, their normal day to day employment did not require the standard of safety equipment that was essential for the Christchurch situation. Therefore, the appropriate equipment had to be procured with some urgency. It was recognised that these are the type of challenges that can be planned for in advance. While every emergency is different and often it is not possible to stipulate solutions, it is possible to have contingencies in place. The expressed view was that developing such policies and plans would lead to improved responses in the future.

There was also a very real concern that it would be difficult to evacuate people if they did get hurt. Transportation routes in and out of the city were overloaded or were damaged. Christchurch hospitals had been damaged in the quakes and were operating under considerable pressure. The main thrust of the commentary was as follows:

Just key things about doing assessments before you go on to a site – because of the nature of the broken ground ...do that initial hazard assessment report and then be aware that everywhere is a hazard down there at the moment... then there is the biological hazard so not to put themselves in harm's way ... if they get

themselves into trouble help is not going to be that easy to get to them.

The interviewees spoke of the reliance on prior OSH training (in business as usual situations) to ensure the safety of staff in Christchurch and that this was not acceptable. It was stated by all the participants that there needed to be specialised OSH training developed for these circumstances. Furthermore, the situation in Christchurch was unstable and the lack established HR policies and practices did constrain the recovery actions. One public sector HR professional described it as follows:

…because you know everyone was all over the place.... probably the reason was because there was no prior planning – there were no guidelines – there was no best practice that had been developed – everyone from the [deleted] down to the people on the ground were really just working on doing what we needed to do - just to get through

The lack of planning was attributed directly to the limited involvement the HR discipline has had with emergency management in the past. All the interviewees spoke of the need to take the lessons that were learned during the Christchurch emergency and incorporate them into HR planning for the future.

Conclusions and Recommendations

As Johnston et al. (2012) stated, there is a lack of empirical data and theoretically based research on disaster recovery in New Zealand. They went on to state that one reason proffered for this has been the absence of significant disasters in the more recent past. Accordingly, this exploratory study contributes to the empirical literature by providing a heightened understanding of the challenges confronting a group of second responders during the Christchurch emergencies.

The current study was situated in the Wellington region. Consequently, it is acknowledged that further research is required before the results are able to be generalised to a wider population. However, the indications are that the findings are able to provide a foundation for further research. Specifically, the study provides a basis for discussion as to the importance of strong second responder networks for effective recovery after a major emergency. Therefore, it is recommended that the relevant legislation informing the emergency management, OSH and the HR disciplines be reviewed,

with the aim of incorporating provisions for second responders.

In addition, as suggested by E. Lagadec (2009), there is a need to identify the complex network of stakeholders who have a legitimate claim to take part in the planning, response or recovery efforts. The findings of this study suggest that the professional disciplines, who have not had a role in emergency management in the past, are included in emergency management planning and preparedness in the future. For example, McNally (2012) identified a role for HR professionals within the emergency management framework. Therefore, it is recommended that there is a concerted effort to identify additional professional disciplines and include them as part of the emergency management network without delay.

The need for second responders to be deployed to the Christchurch region added an additional set of complexities to the leadership role. As Paton et al. (1998) argued, there is a need to develop inter-organisational networks and the organisational structure, systems and management capabilities are needed for a comprehensive, integrated emergency management system. This has implications for emergency management leadership. It is recommended that a new concept is introduced to the emergency management discipline: the concept of proximal-distal planning and responding. The current research shows that there are substantial challenges associated with the response to an emergency that has a distal perspective, particularly when involving second responders. Therefore, this should be incorporated into the emergency management and leadership training processes. While these interviews were conducted in the Wellington region, the proximal/distal concept could be applicable both nationally and internationally.

The findings identified the view that the September earthquake was the "practice run that nobody wanted". However, it did lead to a better quality response in February 2012. Thus, it can be assumed that still further learning occurred subsequent to the February earthquake. Consequently, it is recommended the lessons learnt during this time are not lost and a proactive effort is made to incorporate them into emergency management planning in the future. This finding supports the assertion of E. Lagadec (2009, p. 139) who wrote, "Create a network, keep working with one another, so you can keep learning, keep enriching your experience across borders and sectors."

Accordingly, it is recommended that the different agencies, organizations, professional bodies and local and central government departments act to address the identified gaps, specifically with regard to the role of second responders. This includes establishing relationships, identifying the available resources, and undertake scenario planning, exercises and training.

Finally, it is recommended that further research is undertaken to more fully explore the themes identified in the current research, with respect to the deployment of second responders; specifically, further research that more fully explores the challenges and solutions confronting different professional networks from around New Zealand. It is imperative that the lessons learned, not only during the Christchurch emergencies, but subsequent to them, are documented and become an integral part of the emergency management discipline's future action plans.

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