# Gaining 'authority to operate': student-led emergent volunteers and established response agencies in the Canterbury earthquakes

Sylvia Nissen, Sally Carlton and Jennifer H.K. Wong Faculty of Environment, Society and Design, Lincoln University, Canterbury, New Zealand

#### Abstract

There is growing expectation that local volunteers will play a more integrated role in disaster response, yet emergent groups are often 'outsiders' to crisis management, prompting questions of the conditions and processes by which these groups can forge relationships with established response agencies, and the tensions which can arise those interactions. This article analyses how student-led volunteers, as an emergent group, nevertheless gained "authority to operate" in the aftermath of the 2010-2011 earthquakes in Canterbury, New Zealand. Our study demonstrates how established response agencies and emergent groups can form hugely impactful and mutually supportive relationships. However, our analysis also points to two interrelated tensions that can arise, regarding the terms by which emergent groups are recognised, and the 'distance' considered necessary between emergent groups and established response agencies. The discussion considers implications for inclusiveness, risk and responsibility if emergent volunteers are to be further integrated into disaster response.

Keywords: Emergent volunteers; authority; disaster management; Canterbury earthquakes

## 1. Introduction

From 2010, the Canterbury region of Aotearoa New Zealand was shaken by a sequence of devastating earthquakes. The first 7.1 magnitude earthquake on 4 September 2010 occurred 40km outside Christchurch and in the early hours of the morning, causing significant damage to land and infrastructure but no loss of life. However, on 22 February 2011 an intense aftershock close to the city centre during a weekday lunch hour resulted in 185 deaths, thousands of injuries, and extensive damage to property and infrastructure. These events catalysed significant civic action by individuals, groups, and organisations throughout the city and region (Phibbs, Kenney and Solomon, 2015; Vallance and Carlton, 2015; Cretney, 2018). One of the most prominent and celebrated groups to emerge from this time was the Student Volunteer Army (SVA). Led by students from the local university, the group co-ordinated thousands of volunteers to help clean up streets and properties and deliver supplies to affected residents (Villemure *et al.*, 2012; Lewis, 2013; Mutch, 2014; Carlton and Mills, 2017; Nissen *et al.*, 2021). Almost a decade after the earthquake mobilisations, the SVA is still an active volunteer organisation.

This article has been accepted for publication and undergone full peer review but has not been through the copyediting, typesetting, pagination and proofreading process, which may lead to differences between this version and the <u>Version of Record</u>. Please cite this article as <u>doi:</u> 10.1111/disa.12496.

Volunteerism among citizens is a long-recognised feature of the aftermath of disaster (Dynes, 1970; Stallings and Quarantelli, 1985) and there is growing expectation that local volunteers will play a more pronounced and integrated role in disaster response (Whittaker, McLennan and Handmer, 2015; McLennan, Whittaker and Handmer, 2016; Twigg and Mosel, 2017). These calls acknowledge that such action is likely to manifest following a crisis, but also that it can make a particular and important contribution to long-term disaster response and recovery (Nielsen, 2019; Simsa *et al.*, 2019). However, the relationship between emergent volunteer groups and established response agencies is – as McLennan *et al.* (2021: 8) describe – a "thorny issue". Volunteer action is often 'emergent', 'spontaneous', or 'informal' in the sense that the volunteers are not recruited or trained as part of an official response by government or established non-government organisations. Many established response agencies that rely on hierarchical, command-and-control disaster management structures tend to frame this civic action as unpredictable and a nuisance or liability (Alexander, 2010; Smith *et al.*, 2016).

Emergent volunteers have therefore tended to be peripheral (Strandh, 2019) or 'outsiders' (McLennan *et al.*, 2021) to crisis management, if not actively controlled or suppressed. Yet relationships between emergent groups and established authorities are not fixed; they are dynamic and can be a source of negotiation and contestation that is especially malleable during the disruption provoked by disaster (Strandh, 2019). These relationships are also underpinned by power dynamics that mediate mechanisms of disaster preparedness and response, as well as community strengths and vulnerabilities (McManus, Johnston and Glavovic, 2015; Cretney, 2018). Adding further detail to these relationships is the diversity of crisis volunteerism, and the particular practices and characteristics of emergent groups (McLennan, Whittaker and Handmer, 2016; Strandh and Eklund, 2018).

In this light, there is a need to explore, through situated analysis, the conditions and the processes by which emergent groups can forge relationships with established authorities following disaster, and the tensions which can arise from these interactions. This paper examines these dynamics through the case of the SVA following the Canterbury earthquakes – an emergent group that came to forge a highly impactful and mutually respectful relationship with established authorities in the aftermath of disaster. Our analysis draws on in-depth interviews conducted with student volunteers, officials, and other key informants nearly a decade after the initial mobilisation.

We map how the SVA, as an emergent volunteer group lacking the experience and training of professional bodies, nevertheless gained its own basis of "authority to operate" in the postdisaster environment. In this sense, we do not presume 'authority' is inherent to particular individuals or groups but is, rather, a relational process; through interactions with others, people make sense of their own roles and determine the extent to which they exert (or not) and consent (or not) to others' power over them and their work (Koschmann *et al.*, 2017: 4-5). Drawing on the reflections of interviewees, we consider the perceived possibilities of the relationship between emergent groups and established authorities, but also identify unresolved issues in these interactions that became apparent to interviewees over the subsequent decade. The discussion outlines dilemmas of how, and on what terms, emergent volunteers might play a more prominent and integrated role in disaster response efforts (McLennan, Whittaker and Handmer, 2016).

# 2. Theorising relationships between emergent volunteers and established response agencies following disaster

Emergent volunteerism has long been studied (e.g. Stallings and Quarantelli, 1985; Dynes, 1970) but there has been a resurgence of interest – both in research and policy – in its contribution to disaster response (Strandh, 2019). In particular, there have been calls and in some cases efforts to 'embrace', 'embed' or 'integrate' volunteers into official responses, or to form anticipatory frameworks to 'coproduce' disaster responses (Nielsen, 2019). The case for greater inclusion of emergent volunteers into disaster response draws on several arguments. It has been spurred by recognition that volunteer action is an expected feature post-disaster, but also that volunteers have capacity and capabilities beyond the scope of established response agencies (Twigg and Mosel, 2017; Strandh and Eklund, 2018). In this regard, emergent volunteers are framed as a useful resource or supplement, due to their proximity to the disaster site and localised knowledge (Smith et al., 2016), labour and 'surge' capacity (Alexander, 2010), flexible organisational structure, and innovative potential (Kendra and Wachtendorf, 2003). Calls for integrating emergent volunteers into disaster response have also been part of a 'participatory turn' in disaster management (Vallance, 2015). Post-disaster participation from this perspective is viewed as an expression of collective altruism and collaboration (Helsloot and Ruitenberg, 2004; Irons, 2015) and a contributor to long-term community response and recovery (Steffen and Fothergill, 2009).

However, there are tensions inherent in calls to further integrate emergent volunteers into disaster response and existing structures of emergency management. Dominant approaches to disaster response in many countries have their roots in the military, and typically involve a strong centralised bureaucratic response that seeks to put the 'chaos' of disaster under 'control' by strict 'command' (Whittaker, McLennan and Handmer, 2015; Wolbers *et al.*, 2016: 421-423). As Lanzara (1983: 85) summarises, where emergent groups might regard their action as "autonomous, effective and legitimate", those in established response agencies may perceive it as "fragmented, uncoordinated, arbitrary". With no formal skills, training or experience, emergent volunteers are

often considered as unpredictable, inept and counterproductive; a risk to the efficiency and effectiveness of the response, with potential to compromise health and safety (Drabek and McEntire, 2003; Whittaker, McLennan and Handmer, 2015).

The dominant experience of emergent volunteer groups has thus tended to be one of 'outsider' in disaster response (McLennan *et al.*, 2021). While there are suggestions that these approaches may have loosened in recent years (Scolobig *et al.*, 2015), legacies persist, most notably in reports and guidelines that seek to better 'manage' and 'control' emergent volunteers (Orloff, 2011; Paciarotti, Cesaroni and Bevilacqua, 2018). There can be a focus on identifying models of volunteerism that 'work best' to integrate with existing management structures, requiring more minimal change on the part of established response agencies (Johansson *et al.*, 2018). Professionals from established agencies also make rapid evaluations of volunteers based on their presumed legitimacy, utility and potential liability (Barsky *et al.*, 2007). What this means, as Boin and 't Hart (2010) note, is that the circle of organisations and volunteers actively involved in disaster response is often drawn narrowly, focusing on groups that have pre-existing connections with response agencies, rather than a wider range of community organisations or emergent groups. Structural issues of marginalisation, for instance for Indigenous communities, can further accentuate these experiences of exclusion (Phibbs, Kenney and Solomon, 2015; Yumagulova *et al.*, 2019).

While the interactions between established response agencies and emergent volunteers can be fraught, it is also a relationship that can be actively negotiated. As Strand and Eklund (2018: 334) highlight, there is a risk within research of attributing "dominant actor roles *a priori*" to established response agencies, which lends itself to conceptions of the relationship between established agencies and emergent groups as fixed and dichotomous. Yet as Koschmann *et al.* (2017: 5) note, post-disaster authority is not situated by default in established agencies or from "an organisational context or structural arrangement", but can be developed through a group's actions and interactions with others – including with established agencies (also Uhnoo and Persson, 2020). Emergent groups can also draw on multiple sources of power to establish their own authority in the post-disaster context, including by building credibility within a movement but also through interactions with established agencies and communities (Bryson *et al.*, 2017; McAllan *et al.* 2011; McLennan *et al.*, 2021).

Nevertheless, there is a question of the conditions or terms by which emergent volunteers might be given recognition by established response agencies, especially given the power imbalance that often exists between established agencies and emergent groups (Yumagulova *et al.*, 2019). Recognition and inclusion of crisis volunteers can allow for greater civic engagement (Barsky *et al.*, 2007; Uhnoo and Persson, 2020), but critics caution that it could also be a government exercise in responsibility and cost shifting, without an accompanying shift in power (Scolobig *et al.*, 2015). Expectations placed on volunteers, for instance, may be a manifestation of greater reliance on the voluntary sector in the provision of public services (McLennan, Whittaker and Handmer, 2016). There are also risks that established agencies may 'overdo' affiliation with emergent groups. McLennan *et al.* (2021: 19-20) highlight the possibility of a 'hedgehogs dilemma' in that the closer established response agencies get to voluntary initiatives, the more likely they are to stifle them (also Brandsen, 2016: 349).

Given relationships between emergent groups and established agencies are a persistent source of tension, but also dynamic and malleable, there is considerable scope to explore how these relationships might be forged and negotiated following disaster. In particular, there is a need to examine the conditions and processes by which emergent groups might build a basis of authority that is recognised by established agencies (Yumagulova *et al.*, 2019; Uhnoo and Persson, 2020), and how relationships with established response agencies are encountered, navigated and addressed by emergent groups (McLennan *et al.*, 2021).

#### 3. The study: Student-led volunteerism in the Canterbury earthquakes, 2010-2011

A large earthquake in September 2010 followed by a powerful aftershock almost directly under Christchurch city in February 2011 transformed the Canterbury region of Aotearoa New Zealand. The Christchurch central city was devastated, and many properties and streets to the east of the city were inundated with liquefaction, a thick silt that emerged with the shaking of the ground (Hayward, 2013; McManus, Johnston and Glavovic, 2015; Vallance, 2015). There were numerous closures to schools, as well as loss of community facilities, churches, recreation centres and other business. A decade on, the city is still undergoing a slow process of recovery.

The earthquakes prompted a rapid response from Civil Defence Emergency Management (Civil Defence), New Zealand's national disaster response agency. A subsequent official review concluded that, overall, this response was "well managed and effective" (McLean *et al.*, 2012: 10). However, the review also identified several issues with the response, including the poor or "non-existent" relationships between established response agencies and the numerous community groups operating after the disaster (McLean *et al.*, 2012: 54-55). Some of these groups – like the SVA – formed directly after the earthquakes, while others layered recovery work over their existing activities, including iwi (indigenous Māori tribes), residents' associations, faith-based groups and non-profits (Vallance and Carlton, 2015). Experiences of exclusion in the immediate aftermath of the disaster continued through the longer-term recovery process, with the highly centralised approach

adopted by the central government widely critiqued for restricting local participation (Hayward, 2013; Vallance, 2015; Cretney, 2018).

However, there was one emergent volunteer group that did forge a connection with established response agencies, and that was the SVA. The group is celebrated in international fora as an exemplar of the distinct and important contribution that emergent volunteers can have within disaster response and recovery (Lewis, 2013; Mutch, 2014; Carlton and Mills, 2017; Nissen *et al.*, 2021). Established following the September 2010 earthquake, the SVA coordinated an estimated 2,500 people to help clear more than 65,000 tonnes of silt. The group again mobilised after the February 2011 earthquake, enabling an estimated 13-15,000 volunteers to clear 260,000 tonnes of silt, deliver 21,000 chemical toilets and distribute more than 500,000 leaflets, as well as engage in numerous other projects (Villemure *et al.*, 2012). The SVA become one of the 'grand narratives' of the Canterbury earthquakes (Carlton and Mills, 2017), reflected in the numerous awards the movement's leaders received.

Underlying the impressive speed and scale of the SVA's mobilisation were particular relationships between the student-led volunteers and established response agencies. We explore the conditions and processes through which the SVA, as an emergent group, was able to establish a basis of authority and forge a relationship with established response agencies, and the tensions which arose from this situation. We take an interpretive approach, drawing on 54 in-depth interviews conducted between March and June 2020, as part of a wider study examining the long-term legacies of the student mobilisation. In utilising data collected nearly a decade after the event, we have been cognisant of issues of recollection (Wu, 2020), but also of the value that can come with a degree of 'distance', including allowing for reflections 'with hindsight' or that become apparent to interviewees with time (Gemignani, 2014). In taking this approach our intent was to consider the aspects that those closest to the movement, with the benefit of time, considered most significant in the development of the relationship between the student-led volunteers and established agencies.

As shown in Table 1, interviews were undertaken with people who were part of the SVA or interacted with it, with the aim of developing a rich perspective of the relationship between the emergent group and established response agencies (Robinson, 2014; Malterud *et al.*, 2016). Particular attention was paid to approaching participants with a range of knowledge or experience of the movement (Blee and Taylor, 2002), including those in different roles within the SVA, with significant or more casual involvement, and across different time periods. We also spoke to people external to the SVA that interacted with the group, including officials in established response agencies, community leaders, journalists, and professionals in businesses or at the university. These external perspectives helped develop a richer perspective of how the SVA developed its own basis of authority post-disaster, and the evolution of the relationship with established response agencies. An initial pool of respondents was suggested by Sam Johnson, the founder the SVA, following which a snowball sampling approach was adopted. This approach allowed people who were closely involved to identify others whose perspectives might be valuable in helping us understand the story of the SVA. Participants were contacted via phone, email and LinkedIn following e-introductions. Three possible participants declined to participate.

Table 1 Summary of interview respondents

Respondents	Number
Volunteers involved in 2010-2011 mobilisation, including those in the core team as well as those more peripherally engaged as labourers	19 respondents (4 female; 15 male)
Officials, professionals or community members that interacted with or supported the group	19 respondents (7 female; 12 male)
Students involved with the SVA in the decade since its establishment	16 respondents (9 female; 7 male)

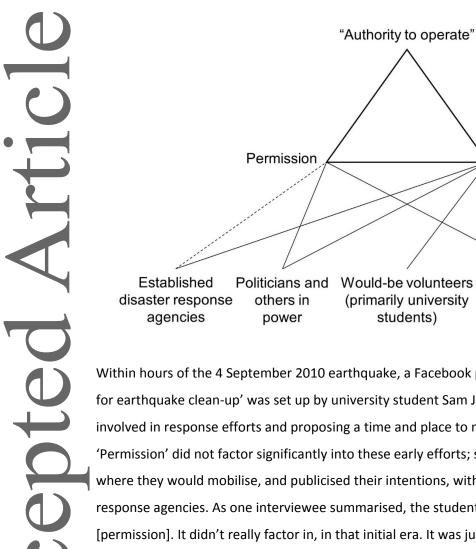
Interviews were one to two hours long and were primarily via Zoom as a result of the Covid-19 lockdown, but where possible some were also conducted face-to-face. Participants were asked a range of questions about their memories of their involvement or interactions with the mobilisation, including the relationships between the student-led volunteers and established response agencies, and their reflections on its legacies at a personal and collective level. All research procedures had ethics approval. Interview transcripts were uploaded into NVivo and the results were subsequently coded for descriptive, topic, and broad analytic insights. Subsequent rounds of coding provided more detailed and nuanced analysis of factors enabling mobilisation, and these codes were subsequently reviewed, synthesised and refined by the authors to develop interpretive convergence. Numbers have been randomly assigned to respondents to ensure their anonymity; however, wherever possible we have provided background information to contextualise their response.

# 4. Gaining "authority to operate"

Over the days and weeks following the September 2010 earthquake, the SVA was able to gain "authority to operate" (Respondent 5) in the post-disaster environment very quickly and to a remarkable extent. In this section, we examine the process through which the SVA established this authority. As we summarise in Figure 1, embedded in this "authority to operate" were two key components – permission and credibility – which the SVA was able to harness from a number of sources, including established disaster response agencies, politicians and others in power, would-be

volunteers (primarily university students), the public and affected communities, and the mainstream media. These multiple sources built both permission and credibility for the SVA through a layered and reinforcing process.

Figure 1 Sources of the SVA's "authority to operate" following the Canterbury earthquakes 2010-2011



Credibility Politicians and Would-be volunteers Public and Mainstream (primarily university affected media students) communities Within hours of the 4 September 2010 earthquake, a Facebook page called 'Student volunteer base for earthquake clean-up' was set up by university student Sam Johnson, urging volunteers to get involved in response efforts and proposing a time and place to meet to begin initial work. 'Permission' did not factor significantly into these early efforts; student leaders decided when and where they would mobilise, and publicised their intentions, without conferring with established response agencies. As one interviewee summarised, the students "didn't worry about it

[permission]. It didn't really factor in, in that initial era. It was just, 'Where are the wheelbarrows, where are the shovels, where are the gumboots? We've got the students, where do we go next?"" (Respondent 10).

In response to Johnson's Facebook call, more than one hundred students and a media crew turned up to the first day of volunteering. The large numbers of students, as well as the social and mainstream media publicity, brought the student volunteers to the attention of Civil Defence personnel who "weren't keen for it to go ahead" and were concerned that "this was going to be uncontrolled" (Respondent 39). One former student recalled "there were concerns of having a whole lot of people, untrained, unqualified, no real structure, turning up into the worst-hit areas and

trying to do good" (Respondent 28). Compounding these concerns was the fact that the group was coordinated by university students who, as a cohort, had a reputation at the time among many locals as largely irresponsible party-goers. Indeed, some officials described the dominant initial reaction from military personnel and controllers as being one of "don't let it happen" and "how do we stop this" (also Lewis, 2013: 825). Others described the "significant gap of understanding to be bridged" between established response agencies and the student volunteers (Respondent 5) and the "scepticism about how this group of volunteers would manage" (Respondent 39).

Civil Defence personnel were thus initially reluctant to allow the SVA to operate; however, this attitude soon changed. The SVA rapidly gained publicity and secured some powerful allies, including the Mayor of Christchurch who provided influential behind-the-scenes endorsement for the concept (4 respondents). In addition to this high-level support, the SVA Facebook page had attracted widespread interest from university students and others wanting to help, as well as from the media. In the otherwise bleak news landscape, the volunteer action was a positive story, reinforced both by the charismatic student leaders and the fact that "these were students who were doing it for free" (Respondent 7). This level of attention helped prompt established response agencies to recognise that they could "not really stop" the SVA (Respondent 15), and they instead reached out to the group.

Initially, the approach from established response agencies in engaging with students was described as "very much controlling" (Respondent 39). The students, despite having not initially sought permission, were nevertheless keen to assist Civil Defence and willing to adapt their plans as needed. The arrangement was that the student leaders would get the volunteers to turn up, and Civil Defence and the military would arrange the logistics, including logging volunteers in and out and providing military personnel to lead teams of students. However, as a former student leader recounted, it quickly became apparent that this approach "didn't work at all [and] the students were really unhappy" (Respondent 20). Not only were there very long queues for sign-in, but there were "very different communication styles" between the predominantly younger students and the military personnel. Reacting to these concerns, technology-savvy members of the SVA worked through the night to arrange an electronic sign-in system to record volunteers' details. The SVA also pushed for student leadership of the process, recognising that "when the students weren't running it, the motivation to volunteer completely evaporated" (Respondent 20).

For Civil Defence officials, the students' actions gradually built the credibility of the SVA. For instance, an official recalled being "so impressed" after their initial interactions with the students and recognised Johnson as "someone I can trust" (Respondent 9). Over the following days, Civil Defence gradually began to step back and give the students more autonomy in running the volunteer response, as "they had shown to those who didn't want them engaged how valuable they are" (Respondent 39). One former student described this hands-off style as enabling the SVA to operate with "implicit" permission from Civil Defence (Respondent 13). These positive interactions led interviewees to note that, by the end of the September 2010 response, the SVA was considered a "trusted service provider" (Respondent 32) and a "very credible organisation to work with" (Respondent 39).

Issues of permission and credibility also emerged through community interactions; as one interviewee incisively noted, "Community is where authority to operate comes from" (Respondent 5). Many residents, especially those in more vulnerable situations, were initially "very hesitant" (Respondent 53) in allowing students to access their neighbourhoods and properties to assist with the earthquake clean-up. This "distrust" stemmed from the poor public perception of students at the time, but also because the student volunteers were largely "outsiders" to the affected communities in terms of age, locality and class (Respondent 53). To broker this situation, some community leaders acted as mediators and facilitators in enabling interactions. One interviewee, for example, described visiting or calling residents and encouraging them to accept the students' help, noting that "I had to be there; it was often they wanted that connecting person that they knew and trusted" (Respondent 53). Through these initial interactions, by the end of the September 2010 response, the students "were known in the community to be reliable so they were [...] welcomed very much with an open arm in February" (Respondent 39).

The much more devastating February 2011 earthquake brought new questions of permission. One former student leader discussed these dilemmas in depth (Respondent 13). Whereas in September 2010 "we didn't have permission; we just went and did stuff", following the February 2011 earthquake the group asked itself, "Do we go back into action? Can we go back into action? Should we go back into action?" as the scale and severity of the damage became apparent. Both permission and credibility appeared to factor into this decision, given the established connections that had been forged during the September 2010 response with Civil Defence, as well as "expectation" and "hounding" from community members and media about whether the students were going to remobilise. These multiple avenues of support were perceived to constitute "some form of blessing" for the SVA's remobilisation (Respondent 13).

A critical way in which 'permission' came into play after the February earthquake was through physical access to established response agencies. These agencies, including Civil Defence, were based in the Emergency Operations Centre at the Christchurch Art Gallery, within a manned cordon that had been erected around the heavily damaged central city. The prevalent commandand-control mentality was to have "one entrance and one card" that allowed entry – providing a

very real barrier to those who did not have official permission. As being part of the response "relied on being in that building" (Respondent 20), the students adopted a somewhat "devious" (Respondent 20) or "guerrilla" (Respondent 7) approach, using Johnson's Community Board identification card to pass through the checkpoint because "none of the cordon people knew the difference between a Community Board member and an official Council card" (Respondent 20). Once inside, the students would then "get in front of the face" of politicians and managers "so that they took us seriously" (Respondents 29 and 7). Since the students knew that they would not get a meeting if they pre-arranged one, they waited outside rooms where meetings were taking place and were able to "walk right into the right people and find the right people [...] you couldn't access it otherwise" (Respondent 20).

Getting behind the cordon in February 2011 was vital not only to access established response agencies, but also the mainstream media. The SVA's September 2010 experiences had demonstrated that positive media coverage could lend huge credibility to the cause and help facilitate permission. Therefore, in February the students deliberately sought to leverage the media "to prove to the authorities that, actually, this was something special" and "worth allowing" (Respondent 7). In fronting interviews, SVA spokespeople tended to emphasise the scale of their impact by specifying "how many kids were involved, how many people were being helped, how many wheelbarrows there were, how many pairs of gumboots there were, how many things were donated" (Respondent 24). In citing these statistics, the SVA sought to prove its usefulness and validate the trust which people had placed in its abilities. This strategy was successful; while established response agencies were once again initially hesitant to enable the SVA, "it clicked that the popularity of the SVA across the country was through the roof, and so all of a sudden they wanted to know and they wanted to listen" (Respondent 7). The extensive media coverage also helped increase the SVA's popularity in the community; one interviewee recalled walking around a supermarket with Johnson and people "chucking whatever they could afford" into the trolley with comments like, "Here take that, feed your workers, you're doing a great job" (Respondent 53).

#### 5. Emergent volunteers and post-disaster "authority to operate": Possibilities and tensions

The SVA was able to rapidly gain "authority to operate" following the Canterbury earthquakes, becoming integral to response efforts even as an emergent volunteer group. Reflecting on this time, many interviewees suggested the SVA provided an exemplar of the importance and value of integrating emergent volunteers into disaster response efforts (15 respondents). Interviewees stressed, firstly, the SVA's significant practical contribution to the response effort, noting that it provided a resource that established response agencies "didn't know even existed" (Respondent 39). As Respondent 32 reflected:

From the perspective of the emergency management [...] what we did is 'impossible'. I put that in inverted commas. It is 'impossible' to mobilise that number of people and get that much work done for that lack of budget, and we did it. And the whole world of emergency management has always viewed spontaneous volunteers as being something to be managed and sort of kept distant from the response.

Interviewees, secondly, emphasised that the SVA had helped to empower local residents by providing "an opportunity for people to help each other" (Respondent 24) in the wake of disaster when "the chips are really down" (Respondent 39). These reflections strongly resonate with literature that makes the case for greater inclusion of emergent volunteer groups into disaster response (Twigg and Mosel, 2017; Strandh, 2019), both as a potential resource to supplement the official response (Sauer *et al.*, 2014), and as a means to assist long-term community recovery though providing a sense of control and meaning in the face of a disempowering situation (Scolobig *et al.*, 2015; Whittaker, McLennan and Handmer, 2015).

While broadly supportive of further inclusion of emergent volunteers in response efforts, interviewees nevertheless identified two interrelated and persistent tensions underscoring the relationship between emergent volunteer groups and established response agencies. With interviews conducted ten years on from the mobilisation, these perspectives were developed "with the benefit of hindsight" (Respondent 1) but also encompassed unresolved issues that had become apparent to interviewees over the subsequent decade. The first tension relates to the basis by which emergent volunteers are recognised by established response agencies, and the second relates to a somewhat paradoxical 'distance' considered necessary in efforts to integrate emergent volunteers into disaster response.

#### 5.1. Recognition based on community empowerment and/or resourcefulness

In discussing the value of the SVA's action, many interviewees noted that the dominant commandand-control approaches of established response agencies did not easily recognise or enable emergent volunteerism (12 respondents). Some interviewees were circumspect in their reflections, seeing in this attitude a professional wariness of the unknown. Respondent 1, for example, noted that while at the time it seemed that established response agencies were "getting in the way", with hindsight they realised that officials were "trying to get to grips with the same thing as we were, which was all these people wanting to help and not having, necessarily, an obvious outlet for that". Others were less sympathetic, however. Established response agencies were described as a "roadblock" to the students' response (Respondent 36), while another interviewee argued, "Authority can be blinded, and it's difficult for authority to trust" (Respondent 7).

Given these frustrations, there was an emotive belief among some interviewees that established response agencies needed to "get the hell out of the way" (Respondent 10) of community-led response efforts, or "keep your sticky beak out of it as much as you can" (Respondent 37). Some interviewees went further, arguing that circumventing or breaking "red tape" or "rules" could be justified to enable volunteerism post-disaster. Respondent 42, for example, spoke positively of the SVA as being "not process-driven [but] people-driven" and "so good at ripping the unnecessary [barriers] down" at a time when "so many barriers had been put up in Christchurch". Some former students also noted that the potential to bend 'rules' was especially possible following disaster: "There wasn't a lot of red tape because people didn't know what to do" (Respondent 15) and that as a result, "you got away with a lot more in that immediate aftermath than you would at any other time" (Respondent 10). Indeed, some interviewees reflected that the SVA constituted a "lesson in not asking for permission" (Respondent 13) and that "it is better to ask for forgiveness than permission" (Respondent 8).

Other interviewees were more cautious, however, reflecting that community empowerment was not as straightforward as getting established response agencies "out of the way" or breaking some rules. One line of discussion focused on the lack of recognition – or active exclusion – of other volunteer contributions in the aftermath of the earthquakes. For example, it was described as "terrible" that the SVA, as an emergent volunteer group, was quickly allowed through the central city cordon after the February 2011 earthquake whereas Ngāi Tahu, the indigenous iwi (tribe) present within the Canterbury region for hundreds of years, was excluded (Respondent 20). (In fact, it took eight days and external mediators for Ngāi Tahu to establish communication with Civil Defence after the February 2011 earthquake). These issues of exclusion extended more widely; as Phibbs, Kenney and Solomon (2015: 77) have detailed, Pākehā (non-Māori) communities often framed initial responses by Māori communities as being outsider and interloper.

Given the poor or "non-existent" relationships between established agencies and most community groups in Canterbury (McLean *et al.*, 2012: 54-55), some interviewees speculated why the SVA had received (implicit) permission in this space, concluding that established response agencies likely valued the SVA as a considerable and useful resource (13 respondents). The SVA offered a significant source of free labour; one former student, for example, wondered "how many millions [of dollars] we saved the city" (Respondent 36). The group was also a "convenient" way for established response agencies to channel volunteers and donations "under one umbrella" so that there were fewer "vigilante" volunteers (Respondent 13). Further, interviewees noted the SVA was

not hindered by the same bureaucratic structures as established response agencies, which "need to have a framework and a structure" (Respondent 43). Instead, the group was able to rapidly evolve to carry out activities that these agencies could not (for example, going onto private property) and with much greater speed and scale: "You guys can just get out and do it whereas if we have to try and mobilise one hundred people – nightmare" (Respondent 13).

Interviewees tended to consider the SVA's resourcefulness – in terms of manpower but also in engaging in activities beyond the scope of established response agencies – as hugely positive and beneficial. Indeed, some framed this capacity as a "point of difference" for emergent volunteer groups that could make their efforts "welcome". As Respondent 10 explained:

If they can identify ways of getting to the cores of where they can be effective as quickly as possible, and cut through that red tape that so many others are still bound by, they'll always be welcome and appreciated. You've just got to hope that nothing bad happens as a consequence.

Yet, as alluded to in this quote, this innovative potential did carry risk. Respondent 3, in particular, raised these concerns. The interviewee did not doubt the value of the SVA's response, but queried whether giving the SVA a "space to run" may not have been "entirely a positive thing". As they reflected, recognition of emergent volunteers by established response agencies could become a matter of outsourcing responsibility:

Doing stuff like this can take somebody else off the hook; so by the Student Volunteer Army going out to the eastern suburbs and clearing out liquefaction and dealing with people faceto-face, the government didn't have to. So in a way while what they did was good because nobody else was coming to do it, nobody else was coming to do it.

A further concern raised by Respondent 3 was the potential for volunteers to get "a little bit over their head" in efforts to demonstrate their usefulness to established response agencies, especially should volunteers feel that "they needed to do it because they were expected to do it". As they summarised, "just because they've got a container full of tools doesn't mean they know how to fix any situation that comes along" (Respondent 3).

#### 5.2. Maintaining distance while integrating emergent volunteers

Over the course of its mobilisations, the SVA developed close working relationships with representatives of Civil Defence. Interviewees commonly praised agencies and individuals with whom they had worked, demonstrating that goodwill, trust and respect developed on each side of the relationship. Some also suggested that the relationship needed to be closer; for instance,

Respondent 7 spoke of "the potential to marry what the Student Volunteer Army does with the authority and the resources that Civil Defence has". However, while this relationship with established response agencies was crucial for enabling the SVA to carry out the activities that it did, interviewees also noted there was a need to maintain some 'distance' from these agencies (8 respondents). So while the group sought a close and integrated relationship, there was an additional - and somewhat paradoxical - belief that it would have been disadvantageous for the SVA as an emergent volunteer group to work too closely with established response agencies.

One line of discussion emphasised that emergent volunteerism cannot and should not be controlled from the top down. As noted previously, the SVA learned this lesson in the very early days of its September 2010 response, when volunteers expressed preference for student leaders over military personnel. However, some interviewees expressed concern that despite these experiences, command-and-control approaches towards volunteer groups had persisted over the subsequent decade (5 respondents). Respondent 36, for instance, recounted attending a Civil Defence training session a few years after the earthquakes and being frustrated at the "contradiction" of the advice given to "assign someone to be the spontaneous volunteer manager so they can manage the spontaneous volunteering".

Maintaining distance was further considered necessary to enable the SVA to undertake tasks and perform in ways that differentiated it from established response agencies. The SVA was able to remain unfettered by standards applied to established response agencies through rule-breaking (both intentional and unintentional) and consciously avoiding seeking out answers, but interviewees recognised that this behaviour was permissible only because of the group's inexperience and naivety. Interviewees who had been part of the core group remarked that they had very little conception of what was not possible, noting that their default response was, "If someone isn't there to tell you that you can't do something, you will probably just do it" (Respondent 36). This attitude meant that the SVA undertook its response effort often without being wholly cognisant of whether it was in fact 'allowed' to do it, or not.

The broadened scope of what was 'possible' was vital for the SVA to undertake the scale and scope of its activities; however, operating (relatively) independently of established response agencies brought a number of potential risks. The issues most commonly focused on by interviewees who had been involved in the movement were health and safety (13 respondents), financial accountability (10 respondents) and data privacy (1 respondent). While these interviewees did not doubt the value of the SVA's contribution, and were "glad" to have been part of it, they were apprehensive looking back on what they considered "could have been just as easily a horror story"

(Respondent 36). These comments were especially made by former students now working as professionals:

We were kids; we didn't know what we were doing. [...] it was nice that we were trusted. But having subsequently gone through [...] emergency management training and all those qualifications done, I am shocked that we were ever allowed to do anything (Respondent 36).

With the benefit of hindsight, another interviewee spoke of getting "heebie jeebies" when they thought about the 'rules' that they had inadvertently broken: "If you were anything but a group of people who had no idea about it [the 'rules'], you'd never do it" (Respondent 6).

Interviewees further identified difficulties in maintaining distance (or a degree of ignorance) over time – especially if there was a perceived "expectation" of post-disaster volunteer mobilisation (Respondent 3). In the years since its establishment, the SVA became a 'repeat emergent' disaster volunteering organisation (Carlton and Mills, 2017), responding to a range of disasters from floods to fires. Respondent 10 explained the tension this created: "The closer, sometimes, you get to these [established response] agencies, the harder it becomes to ask for forgiveness because you know darned well what the rules are." They summarised: "It becomes harder to ask for forgiveness the more you know about what you're doing" (Respondent 10).

# 6. Discussion

The significant contribution of the SVA in the aftermath of the Canterbury earthquakes shows the potential of mutually supportive relationships between emergent volunteer groups and established response agencies, especially when groups are able to liaise and share information, and then operate with relative autonomy. Yet even in this instance, the process of developing and maintaining this relationship was far from straightforward, and could be quite fraught. It is widely recognised that dominant command-and-control approaches conflict with the spontaneous action of emergent volunteers (Scolobig *et al.*, 2015; McLennan, Whittaker and Handmer, 2016), and this was certainly the case of the SVA, where officials initially sought to "shut it down". However, while the SVA was initially spurned, it was able to rapidly gain "authority to operate" through a layered and reinforcing process, building both permission and credibility through a variety of sources.

The case of the SVA provides a reminder that the relationship between emergent volunteer groups and established response agencies is not dichotomous (Wolbers *et al.*, 2016; Strandh and Eklund, 2018). Both Civil Defence and the SVA had, or came to have, forms of authority. Interviewees often associated the term 'authority' with Civil Defence, in many respects reflecting

Strandh and Eklund's (2018) caution that portraying the relationship as dichotomous tends to attribute dominant actor roles to established agencies. However, they also simultaneously recognised that authority could come from a number of sources, including the community. Moreover, neither Civil Defence nor the SVA were static in their processes and attitudes, with both evolving through their interactions over the course of the earthquake response. The relationship came to work especially well where officials and volunteers came together to listen and share information and resource, but then acted with relative autonomy and minimal oversight.

While both Civil Defence and the SVA changed as a result of their interactions, it needs to be acknowledged that the SVA 'shifted' significantly more – unsurprisingly, given the power imbalance between established response agencies and emergent volunteer groups (Strandh and Eklund, 2018). Over the course of the response, Civil Defence altered its perception of emergent groups, both allowing "space" for the SVA to operate and providing it with information and resource. However, while these changes marked an attitudinal shift, they did not substantially affect the agency's operations. By contrast, the SVA, from the earliest days of its mobilisation, began tailoring its response plans to take into account the advice and information provided by Civil Defence. These interactions enabled the SVA to deploy volunteers to carry out low-risk but high-impact work that was appropriate for their level of experience, in areas where its services were most required, and in a way that was complementary to and integrated with the official response. As such, the SVA was able to fill a response 'vacuum', which further enhanced the group's credibility and newsworthiness in the eyes of the public and media, helping garner more volunteers and creating somewhat of a self-fulfilling cycle of permission and credibility.

Although the SVA developed a supportive relationship with established response agencies, the complex process through which the SVA gained "authority to operate" raises three interrelated dilemmas of how, and on what terms, emergent volunteers might play a more prominent and integrated role in disaster response efforts. First, our study draws attention to the unequal recognition that established response agencies extend to sources of community-based authority. As Phibbs, Kenney and Solomon (2015) among others have noted, the dominant experience of both emergent and extending crisis volunteers in Canterbury was one of exclusion; in forging the relationship that it did, the SVA was in many ways an exception. As such, the case of the SVA reminds us of the diversity of crisis volunteer groups (Strandh and Eklund, 2018), but also of the potential for response efforts to reproduce existing marginalisation (Yumagulova *et al.*, 2019; Cretney, 2018). In this respect, our study supports concerns voiced by Boin and 't Hart (2010) that the circle of volunteers included in formal disaster response efforts can be drawn too narrowly. It prompts a question of where the power to provide "authority to operate" currently resides in post-

disaster environments, and in what ways that might need to shift to enable more diverse forms of volunteer engagement and community-based authority in disaster response efforts.

Second, and perhaps somewhat conversely, our study raises questions about risk for volunteers. Resonating with ideas of the so-called 'hedgehog dilemma' (Brandsen, 2016; McLennan et al., 2021), the experience of the SVA suggests the importance of allowing emergent volunteers groups to maintain a degree of 'distance' from established response agencies, since attempts to control or manage from the top down appeared to suppress volunteer efforts. Yet while this distance can be empowering, it also brings risk: although some interviewees idealised the SVA as "community members helping community members" (Respondent 39), others were conscious that in sending several thousand untrained volunteers to work in a post-disaster environment, it was "exceptionally lucky that nothing bad happened" (Respondent 36). If emergent volunteers are to play a more integrated role in disaster response, it is not clear the extent to which they might shoulder more risk as they scale up operations (particularly if they operate under more autonomous conditions), or whether risk might be reduced as emergent groups gain an augmented appreciation for protocol. Alternatively, there are questions as to whether an increased awareness of protocol – with a corresponding loss of naivety and declining ability to "ask for forgiveness rather than permission" – could undermine or compromise the strengths of emergent volunteer efforts, such as their flexibility and innovation.

Third, and related, our study lends weight to concerns about responsibility; namely, at what point support for emergent volunteer groups becomes a matter of outsourcing responsibility in disaster response (Scolobig et al., 2015; McLennan, Whittaker and Handmer, 2016). Emergent volunteers have been celebrated both by researchers and practitioners for their resourcefulness, flexibility and innovation, as well as a means for community empowerment (Twigg and Mosel, 2017) - all of which have the potential to make a positive contribution to disaster response, and all of which set them apart from established response agencies. It was notable in Canterbury that the student-led volunteers came to carry out activities that Civil Defence was not able to undertake because of the considerable resource of the movement, but also by having a broad scope of what was 'possible', whether through inexperience (or conscious ignorance) or by not being bound by the same "rules" (or having a willingness to break them). These actions were justified both as a means to demonstrate the utility of emergent volunteer efforts as well as for community empowerment, forming a type of reinforcing logic. However, these actions are also situated in a wider disaster context with an embedded power imbalance between established response agencies and emergent volunteer groups, including substantial barriers to recognition (Smith et al., 2016; Strandh and Eklund, 2018; Yumagulova et al., 2019). This dynamic raises a number of ethical dilemmas about

responsibility, should recognition become contingent (even implicitly, through a perceived "expectation") on emergent groups demonstrating particular capabilities. There is potential, for instance, that volunteers might put themselves at higher risk in an effort to demonstrate resourcefulness and receive recognition. Likewise, there is scope for the expanded space of 'possibility' offered by volunteers (whether through inexperience or deliberate rule-breaking) to be exploited.

#### 7. Conclusion

The case of the SVA demonstrates that established response agencies and emergent volunteer groups can form effective and mutually respectful relationships in the aftermath of disaster. Yet, rather than signifying a systematic shift, the SVA appears as somewhat of an exception; not least because of the exclusion experienced by other response groups in Canterbury. Moreover, in addition to working around Civil Defence suggestions, the SVA needed to build permission and credibility from multiple sources in a reinforcing process to have "authority to operate" in the post-disaster environment. The case raises significant unresolved questions relating to the terms by which emergent volunteer groups like the SVA are given recognition by established response agencies, with implications for risk and responsibility if emergent volunteers are to play a more integrated role in disaster recovery.

Our study points to the need for further research that explores the sometimes fraught relationship between established response agencies and emergent volunteer groups in different disaster contexts. In particular, there is scope to examine the processes through which emergent groups might develop a basis of authority, and the conditions under which these emergent groups are given recognition and forge relationships with established response agencies. In line with calls made by McLennan, Whittaker and Handmer (2016) and Strandh (2019), our study points to the value of research that centres analysis on the experiences of emergent volunteer groups, as well as one that is attentive to underlying power dynamics associated with disaster response, including their repercussions for risk and responsibility. This study is also suggestive of the value of a relational approach to authority advocated by Koschmann *et al.* (2017) to minimise dichotomous portrayals of the relationship between emergent volunteerism and established response agencies, while acknowledging and exploring the possibilities of multiple sources of authority.

#### Acknowledgements

The authors would like to thank the research participants for generously contributing their time and reflections to this project, and Sam Johnson and the Student Volunteer Army for their support for the project. We would also like to thank Emma Hall for her research assistance, and the anonymous reviewers for their thoughtful feedback on this paper.

#### Funding

This work was supported by a grant from the Marsden Fund, administered by Te Apārangi | The Royal Society of New Zealand on behalf of the Marsden Fund Council [MFP-LIU1801].

#### Correspondence

**Sylvia Nissen** Faculty of Environment, Society and Design, Lincoln University, Canterbury, New Zealand. Email: sylvia.nissen@lincoln.ac.nz

## References

- Alexander, D. (2010) 'The voluntary sector in emergency response and civil protection: review and recommendations'. *International Journal of Emergency Management*. 7(2). pp. 151–166.
- Barsky, L.E., J.E. Trainor, M.R. Torres and B.E. Aguirre (2007) 'Managing volunteers: FEMA's Urban Search and Rescue programme and interactions with unaffiliated responders in disaster response'. *Disasters*. 31(4). pp. 495-507.
- Blee, K.M. and Taylor, V. (2002) 'Semi-Structured Interviewing in Social Movement Research'. In B.
  Klandermans and S. Staggenborg (eds.), *Methods of Social Movement Research*. University of Minnesota Press, London.Brandsen, T. (2016) Governments and self-organization: A hedgehog's dilemma. In J. Edelenbos & I. Van Meerkerk (eds.), *Critical reflections on interactive governance: Self-organization and participation in public governance*. Edward Elgar Publishing, Northampton, MA. pp. 337-351.
- Bryson, J., Sancino, A., Benington, J., & Sørensen, E. (2017) 'Towards a multi-actor theory of public value co-creation'. *Public Management Review*. 19(5). 640–654.
- Boin, A. and P. 't Hart (2010) 'Organising for Effective Emergency Management: Lessons from Research'. *Australian Journal of Public Administration*. 69(4). pp. 357–371.
- Carlton, S. and C.E. Mills (2017) 'The Student Volunteer Army: a "repeat emergent" emergency response organisation'. *Disasters*. 41(4). pp. 764–787.
- Cretney, R.M. (2018) 'Beyond public meetings: Diverse forms of community led recovery following disaster'. *International Journal of Disaster Risk Reduction*. 28. pp. 122–130.
- Davidson, C.H., C. Johnson, G. Lizarralde, N. Dikmen and A. Sliwinski (2007) 'Truths and myths about community participation in post-disaster housing projects'. *Habitat International*. 31(1). pp. 100–115.
- Drabek, T.E. and D.A. McEntire (2003) 'Emergent phenomena and the sociology of disaster: lessons, trends and opportunities from the research literature'. *Disaster Prevention and Management: An International Journal*. 12(2). pp. 97–112.

Dynes, R.R. (1970) Organized Behavior in Disaster. Lexington, MA: Heath Lexington Books.

- Gemignani, M. (2014) 'Memory, Remembering, and Oblivion in Active Narrative Interviewing'. *Qualitative Inquiry*. 20(2). pp. 127-135.
- Hayward, B. (2013) 'Rethinking Resilience: Reflections on the Earthquakes in Christchurch, New Zealand, 2010 and 2011'. *Ecology and Society*. 18(4). pp. 37-42.
- Helsloot, I. and A. Ruitenberg (2004) 'Citizen Response to Disasters: a Survey of Literature and Some Practical Implications'. *Journal of Contingencies and Crisis Management*. 12(3). pp. 98–111.
- Irons, M. (2015) "We can help:" An Australian case study of post-disaster online convergence and community resilience (Unpublished doctoral dissertation). University of Tasmania, Australia.
- Johansson, R., E. Danielsson, L. Kvarnlöf, K. Eriksson and R. Karlsoon (2018) 'At the external boundary of a disaster response operation: The dynamics of volunteer inclusion'. *Journal of Contingencies and Crisis Management*. 26(4). pp. 519–529.
- Kendra, J.M. and T. Wachtendorf (2003) 'Elements of Resilience After the World Trade Center
  Disaster: Reconstituting New York City's Emergency Operations Centre'. *Disasters*. 27(1). pp. 37–53.
- Koschmann, M., J. Kopczynski, A. Opdyke and A. Javernick-Will (2017) 'Constructing Authority in Disaster Relief Coordination'. *The Electronic Journal of Communication*. 27(3). pp. 1-24.
- Lanzara, G.F. (1983) 'Ephemeral Organizations in Extreme Environments: Emergence, Strategy, Extinction'. *Journal of Management Studies*. 20(1). pp. 71–95.
- Lewis, K.V. (2013) 'The power of interaction rituals: The Student Volunteer Army and the Christchurch earthquakes'. *International Small Business Journal*. 31(7). pp. 811–831.
- Malterud, K., Siersma, V.D. and Guassora, A.D. (2015) 'Sample Size in Qualitative Interview Studies: Guided by Information Power'. *Qualitative Health Research*. 26(13). pp. 1753-1760.
- McAllan, C., V. McAllan, K. McEntee, W. Gale, D. Taylor, J. Wood *et al.* (2011) Lessons Learned by Community Recovery Committees of the 2009 Victorian Bushfires. Melbourne: Cube Management Solutions.
- McLean, I., D. Oughton, S. Ellis, B. Wakelin, C.B. Rubin (2012) 'Review of the Civil Defence Emergency Management Response to the 22 February Christchurch Earthquake'. https://www.civildefence.govt.nz/assets/Uploads/publications/Review-CDEM-Response-22-February-Christchurch-Earthquake.pdf.
- McLennan, B., J. Whittaker, T. Kruger and J. Handmer (2021) 'Navigating authority and legitimacy when 'outsider' volunteers co-produce emergency management services'. *Environmental Hazards*. 20(10). pp. 7-22.
- McLennan, B., J. Whittaker and J. Handmer (2016) 'The changing landscape of disaster volunteering: opportunities, responses and gaps in Australia'. *Natural Hazards*. 84(3). pp. 2031–2048.
- McManus, R., D. Johnston and B. Glavovic (2015) 'Contested meanings of recovery: a critical exploration of the Canterbury earthquakes–voices from the social sciences'. *Kōtuitui: New Zealand Journal of Social Sciences Online*. 10(2). pp. 69–71.

- Mutch, C. (2014) 'Citizenship in Action: Young People in the Aftermath of the 2010-2011 New Zealand Earthquakes'. *Sisyphus Journal of Education*. 1(2). pp. 76–99.
- Nielsen, L.R. (2019) 'Embracing and integrating spontaneous volunteers in emergency response A climate related incident in Denmark'. *Safety Science*. 120. pp. 897–905.
- Nissen, S., S. Carlton, J.H.K. Wong and S. Johnson (2021) "Spontaneous" volunteers? Factors enabling the Student Volunteer Army mobilisation following the Canterbury earthquakes, 2010-2011'. International Journal of Disaster Risk Reduction. 53.
- Orloff, L. (2011) Managing Spontaneous Community Volunteers in Disasters: A Field Manual. CRC Press.
- Paciarotti, C., A. Cesaroni and M. Bevilacqua (2018) 'The management of spontaneous volunteers: A successful model from a flood emergency in Italy'. *International Journal of Disaster Risk Reduction*. 31. pp. 260–274.
- Phibbs, S., C. Kenney and M. Solomon (2015) 'Ngā Mōwaho: an analysis of Māori responses to the Christchurch earthquakes'. Kōtuitui: New Zealand Journal of Social Sciences Online. 10(2). pp. 72–82.
- Robinson, O.C. (2014) 'Sampling in Interview-Based Qualitative Research: A Theoretical and Practical Guide'. *Qualitative Research in Psychology.* 11(1). pp. 25-41.
- Sauer, L.M., C. Catlett, R. Tosatto and T.D. Kirsch (2014) 'The Utility of and Risks Associated With the Use of Spontaneous Volunteers in Disaster Response: A Survey'. *Disaster Medicine and Public Health Preparedness*. 8(1). pp. 65–69.
- Scolobig, A., T. Prior, D Schröter, J. Jörin and A. Patt (2015) 'Towards people-centred approaches for effective disaster risk management: Balancing rhetoric with reality'. *International Journal of Disaster Risk Reduction*. 12. pp. 202–212.
- Simsa, R., P. Rameder, A. Aghamanoukjan and M. Totter (2019) 'Spontaneous Volunteering in Social Crises: Self-Organization and Coordination'. *Nonprofit and Voluntary Sector Quarterly*. 48(2). pp. 103-122.
- Smith, K., H. Hamerton, S. Hunt and R.J. Sargisson (2016) 'Local volunteers respond to the Rena oil spill in Maketū, New Zealand'. Kōtuitui: New Zealand Journal of Social Sciences Online. 11(1). pp. 1–10.
- Stallings, R.A. and E.L. Quarantelli, (1985) 'Emergent Citizen Groups and Emergency Management'. *Public Administration Review*. 45. pp. 93–100.
- Steffen, S.L. and A. Fothergill (2009) '9/11 Volunteerism: A pathway to personal healing and community engagement'. *The Social Science Journal*. 46(1). pp. 29-46.
- Strandh, V. (2019) 'Crisis Volunteerism is the New Black?—Exploring the Diversity of Voluntary Engagement in Crisis Management'. *Risk, Hazards & Crisis in Public Policy*. 10(3). pp. 311– 331.
- Strandh, V. and N. Eklund (2018) 'Emergent groups in disaster research: Varieties of scientific observation over time and across studies of nine natural disasters'. *Journal of Contingencies and Crisis Management*. 26(3). pp. 329–337.

- Twigg, J. and I. Mosel (2017) 'Emergent groups and spontaneous volunteers in urban disaster response'. *Environment and Urbanization*. 29(2). pp. 443–458.
- Uhnoo, S. and S. Persson (2020) 'Emotion management of disaster volunteers: the delicate balance between control and recognition'. *Emotions and Society*. 2(2). pp. 197–213.
- Vallance, S. (2015) 'Disaster recovery as participation: lessons from the Shaky Isles'. *Natural Hazards*. 75(2). pp. 1287–1301.
- Vallance, S. and S. Carlton (2015) 'First to respond, last to leave: Communities' roles and resilience across the "4Rs"'. *International Journal of Disaster Risk Reduction*. 14. pp. 27–36.
- Villemure, M., T.M. Wilson, D. Bristow, M. Gallagher, S. Giovinazzi and C. Brown (2012) 'Liquefaction ejecta clean-up in Christchurch during the 2010-2011 earthquake sequence'. New Zealand Society for Earthquake Engineering Conference. Christchurch, New Zealand.
- Whittaker, J., B. McLennan and J. Handmer (2015) 'A review of informal volunteerism in emergencies and disasters: Definition, opportunities and challenges'. *International Journal of Disaster Risk Reduction*. 13. pp. 358–368.
- Wolbers, J., J. Ferguson, P. Groenewegen and F. Mulder (2016) 'Two Faces of Disaster Response: Transcending the Dichotomy of Control and Collaboration During the Nepal Earthquake Relief Operation'. *International Journal of Mass Emergencies and Disasters*. 34(3). pp. 419– 438.
- Wu, Hao-Che (2020) 'Households disaster memory recollection after the 2013 Colorado flood'. *Natural Hazards*. 102. pp. 1175-1185.
- Yumagulova, L., S. Phibbs, C.M. Kenney, D. Yellow Old Woman-Munro, A.C. Christianson, T.K. McGee and R. Whitehair (2019) 'The role of disaster volunteering in Indigenous communities'. *Environmental Hazards*. pp. 1–18.