The role of public relations in building community resilience to natural disasters: perspectives from Sri Lanka and New Zealand

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Abstract

Purpose – The paper identifies a role for public relations in disaster management by analysing disaster and communication managers' understanding of community resilience and their use of communication in the context of two different cultural environments.

Design/methodology/approach – The research study comprised 51 in-depth qualitative interviews with disaster managers in Sri Lanka and New Zealand, which were thematically analysed using the software programme NVivo 10.

Findings – The study identified cultural differences in Sri Lanka and New Zealand that impact on how managers' communicate in natural disaster situations. The findings indicated that public relations' understanding of communities' cultures, their communication, networking and lobbying skills could further enhance the effectiveness of efforts to build community resilience to disasters.

Research limitations/implications – Nations are complex multicultural realities; the findings cannot be generalized to make claims about how natural disasters are managed in different national contexts.

Practical implications – The paper identifies the unrealized potential of public relations' expertise in communication, community relations, networking and lobbying to contribute to building community resilience to natural disasters.

Social implications – By supporting efforts to build community resilience to disasters, public relations practitioners can contribute to social well-being in times of catastrophic natural disasters.

Originality/value – The paper adds an innovative perspective to public relations crisis literature by identifying the potential contribution of public relations' concepts and practices to build community resilience to natural disasters. It demonstrates how sociocultural differences may affect disaster communication strategies.

Keywords Disaster, Public relations, Crisis communication, Community relations

Paper type Research paper

Introduction

While the frequency and intensity of natural disasters cannot be reduced without significant global environmental changes, communities' resilience to disasters "can be increased through improvements in communications, risk awareness, and preparedness" (Paton and Johnston, 2006, p. 603). This is a key area for communication professionals who have an important role to play in facilitating information dissemination before, during and after disasters.

Disaster managers are responsible for the development of resources, training and communication programmes aimed at managing the effective response to natural disasters. This paper reports on a study of what community resilience means to disaster and

communication managers, how they use communication to enhance such resilience to natural disasters and the unrealized potential of public relations' skills to contribute to the achievement of this. The study was conducted in Sri Lanka and New Zealand and identified differences and similarities in these sociocultural contexts based on data drawn from 50 in-depth interviews (25 in each country) with communication and disaster managers in governmental, non-governmental (NGO) and non-profit organizations. An additional interview with a public relations expert who became a community resilience officer was conducted in New Zealand in 2019 and is included in the analysis.

Both Sri Lanka and New Zealand have experienced significant natural disasters including floods, landslides and earthquakes. A 2004 tsunami in Sri Lanka and a 2011 earthquake in New Zealand forced the governments of these countries to establish new units to deal with natural disasters in all stages: preparation, management and recovery. Consequently, new areas of disaster management expertise and career opportunities developed in fields such as engineering, management and environmental planning. However, little research has been conducted on the central role of communication in disaster management in these national contexts.

The article argues that public relations' practices and concepts have a greater role to play in supporting the development of community resilience to natural disasters than existing literature suggests, particularly in relation to community and network relationship management and communication. It reveals how organizations that manage disasters need to consider sociocultural values when communicating with communities. Sri Lanka, because it is an economically developing country with Buddhist majority, tends to adopt a fatalistic approach to disasters. While poverty and attachment to places of livelihood pose challenges for effective persuasive communication, collectivist values provide a basis for building community resilience. In New Zealand's developed economy, secular and individualist culture, resilience is mostly understood as the ability to look after oneself and communicators face challenges persuading people to seek help from others and familiarize themselves with good sources of information.

Literature review
Community resilience
The word "resilience" is derived from the Latin word *resilio*, meaning "to jump back" (Klein *et al.*, 2003, p. 35). A rare discussion of resilience in the public relations literature is Moreno *et al.'s* (2019) attempt to predict practitioners' tolerance for work stress in Latin America. However, the origins of research into resilience belong in physics and ecology, with it later becoming a central focus of disaster management. Manyena (2006) identified the many models which contributed to this focus – from those in risk management (Paton *et al.*, 2000), hazard planning and sustainability (Tobin, 1999) to those grounded in notions of social resilience (Bradely and Grainger, 2004). In disaster recovery literature, there has been a clear change of emphasis away from managing community's need and vulnerability in the face of disasters to one focussing on self-managed recovery or community resilience (Manyena, 2006).

Building community resilience involves developing skills and knowledge that enable adaptive capacity. According to Veil (2013), resilient communities "are able to maintain operations or quickly return to normal following a disturbance such as a natural disaster" (p. 793). Sociological perspectives on community resilience investigate the social process that enables communities to handle adversity. Magis (2010) stated that community resilience comprises the "existence, development, and engagement of community resources by community members to thrive in an environment characterized by change, uncertainty, unpredictability and surprise" (p. 401). Similarly, Kulig *et al.* (2008) noted that "community

resilience is a social process which strengthens communities to face adversity successfully" (p. 93). Disaster management literature has identified the importance of adequate social resourcing, in the form of infrastructure and support services, in building resilient communities (Hegney *et al.*, 2008).

In contrast, the psychology and mental health disciplines focus on an individual's resilience and ability to deal with adversity. However, Buikstra *et al.* (2010) argued that "connections between individual and community resilience are synergistic and can serve to strengthen communities as well as providing support for individuals within them" (p. 976). They researched rural Australian communities' resilience to draught and tried "to develop, implement, and evaluate a model that enhances psychological wellness in rural people and communities" (p. 978). Their research identified 11 major resilience concepts: "social networks and support, positive outlook, learning, early experience, environment and lifestyle, infrastructure and support services, sense of purpose, diverse and innovative economy, embracing differences, beliefs, and leadership" (p. 981). Most of these resilience concepts resonate with public relations scholarship on community relations, networking, dialogue and leadership.

The World Conference on Disaster Reduction held in January 2005 in Hyogo, Japan, proposed a global strategy for community disaster resilience – the Hyogo Framework for Action. This outlined priorities relevant to public relations' practice, advocating the need to "Use knowledge, innovation and education to build a culture of safety and resilience at all levels. . . [and] Strengthen disaster preparedness for effective response at all levels" (United Nations Office for Disaster Reduction, 2007, p. 5). The Hyogo Framework specifically identified the need for "Dialogue, coordination and information exchange between disaster managers and development sectors [as well as] voluntarism and participation" (United Nations Office for Disaster Reduction, 2007, p. 23). This global strategy requires public relations' skills in facilitating dialogue, designing and disseminating information, as well as building networks of the organizations that are involved in managing natural disasters.

The literature on community resilience inspired the first two research questions, which we have addressed in this study:

RQ1. What does community resilience mean for disaster communication managers?

RQ2. How do disaster managers use communication to build community resilience?

Community and natural disasters in public relations literature
Community resilience has not been widely explored in the public relations discipline. Public relations' scholarship has predominantly considered the communication challenges posed by natural disasters within the context of crisis management (Coombs, 2007; Coombs and Holladay, 2010; Frandsen and Johansen, 2017; Heath and Coombs, 2006; Lerbinger, 2012; Lukeszewski, 2013). In *the Handbook of Crisis Communication*, Coombs and Holladay (2010) stated that "disaster communication can be designated a distinct, allied field of crisis communication" (p. 61). They differentiated the two by explaining that natural disasters are caused by external factors and require a network of multiple organizations to deal with them, whereas a crisis is usually caused by internal organizational factors and is managed by the organizations involved (pp. 96–98).

The organizational approach to crisis communication is reflected in Coombs' (2007) article, which includes a table of crisis types by clusters and places "natural disaster" in the "victim cluster" (p. 168). The victim cluster ascribes low attribution of crisis responsibility to any person or organization. Coombs (2007) stated that "the organization is also a victim of the crisis" (p. 168), and though it is not responsible for the disaster, it can face mild reputational risk as a consequence of it. Accordingly, Lukaszewski (2013) concluded that "Disaster brings

with it far less potential for blame" (p. 13) and organizations involved in disaster management generally need to worry less about protecting their brand or about image restoration (Benoit, 2015).

Coombs and Holladay (2002) developed situational crisis communication theory (SCCT) which linked crisis response strategies to crisis types – as a way to improve the protection of reputational assets in crisis management situations. According to Sellnow and Seeger (2013) "Because SCCT is based largely on maintaining or re-establishing a favourable organizational reputation, the theory is used extensively in public relations research" (p. 91). This focus on organizational reputation in crisis management is reiterated in Coombs and Holladay's (2014) statement: "Desired effects from crisis communication efforts include minimizing reputational damage from a crisis, maintaining purchasing intention, and preventing negative word of mouth" (p. 40). Most SCCT response strategies (i.e. accusation, denial and apology) are useful for responding to organizational crises caused by internal factors but are not central to natural disaster management where the crisis is caused by external factors. Another example of the corporate focus on reputational risks in public relations literature on disaster management is in the work of Jaques (2007), who identified disaster management as a model for issue and crisis management. He identified disaster managers' emphasis on preparedness as inspiration for corporations stating that "Disaster management can provide a useful framework for corporate issue or crisis management, particularly by highlighting the elements as linked processes and not stand-alone disciplines" (p. 149).

Coombs (2010) was adamant about the need for an organizational perspective on disaster management: "While the overall disaster communication is occurring, individual, private sector organizations must engage in their own crisis communication . . . it is recommended that private sector organizations include first responders in their full–scale crisis exercise" (p. 60). Discussing similarities and differences between crisis and disaster communication, Coombs (2010) argued that "Both fields demand an initial response that concentrates on public safety" (p. 61). Evident from the literature, from a public relations' perspective, natural disasters have predominantly been discussed in terms of their potential to create organizational reputational crises that need to be managed. The potential for public relations' contribution to building community resilience is rarely explored.

One recent exception to public relations scholarly approaches to disaster management is a study reported in Heath *et al.* (2018) and Heath *et al.* (2019). Rather than focussing on how the disaster might have consequences on an organization that has to be managed, this study analysed the effectiveness of a cartoon turtle spokes-character in delivering a safety message to residents who were vulnerable to chemical release from a petrochemical facility in Texas. The research study examined the communication strategy aimed at preparing and educating residents about safety. Conducted over several years, it concluded that "strategic emergency response and other risk communication campaigns are increasing public safety" (Heath *et al.*, 2019, p. 136). However, this research discussed community resilience to a potential human-made rather than a natural disaster and in the context of corporate crisis and risk management.

Disaster management is a relatively new professional occupation and its wider relevance to public relations is yet to be fully considered. We contend that public relations has a significant role to play in disaster management, which is focussed more on building community resilience than on protecting the reputation of organizations involved in a crisis situation.

A public relations function that intersects with disaster management's attempt to empower communities and build their resilience is community relations. Community relations is associated with the goal of supporting organizations to be "welcomed partners in communities where they want to operate" (Dostal Neff, 2013, p. 169) and with helping

organizations gain legitimization within the community and achieve organizational interests. Several public relations theorists identified community building as a public relations function, though not in the context of disaster management (Kruckeberg and Starck, 1988). Hallahan (2013) identified the concept of community as especially appealing to public relations scholars who draw on critical, cultural and postmodern perspectives, where "The shift away from conceptualizing public relations as an organization-centred practice to one in which various social actors engage reflects the importance of power in the community" (p. 168). Hallahan (2013) suggested three ways in which public relations can be used to build communities: (1) community involvement – participating in an already existing community; (2) community nurturing – sponsoring community activities; (3) community organizing – creating clubs, associations and societies outside of an organizational context (pp. 168–169). This emphasis on public relations practitioners' role as community builders provides strong support for research into the role that public relations could have in building community resilience to natural disasters.

Networks

Networks are essential to building community resilience as they help create a sense of community (Ross *et al.*, 2010) and belonging and the coordination of networks is vital in disaster response. Von Lubitz *et al.* (2008) noted that "Poor information flow both within and among the organizations/agencies involved in the preparation for, and management of, disasters is among the principal source of failures whose cost often reaches millions of dollars and thousands of unnecessarily lost lives" (Abstract, para. 1). Networks are defined as "social structures created by communication among individuals and groups" (Littlejohn and Foss, 2011, p. 303). Adkins (2010) expanded on the importance of an effective well-coordinated network of governmental and non-profit organizations in managing disasters and emphasized the need to include "analysis of the communicative behaviour of multi-organizational networks" (p. 95) in communication studies.

In their discussion of natural disasters as a related field for crisis management, Frandsen and Johansen (2017) listed the community emergency response organizations involved in disaster management: "the police, fire departments, emergency medical services, home guards, and agencies at the local and/or national level" (p. 11). It is crucial for effective disaster management that these emergency services, as well as non-profit relief organizations such as the Red Cross and the United Nations Children's Fund (UNICEF), coordinate their strategies, communicate and work together within a network before, during and after a natural disaster.

Public relations' skills could contribute significant value in building trustworthy relationships and effective flows of communication between agencies involved in the network managing a disaster, especially in the context of shifts from a controlled communication environment dominated by the mass media towards a more democratic networked public sphere (Benkler, 2006, p. 10) or network society (Castells, 2000; Shirkey, 2009; van Dijk, 2012). According to Heath (2005), "network theory features the central premise, vital to public relations, that people need and want information" (p. 564). Network theory also addresses the pathway of information flow within and between organizations and challenges public relations' practice to "create networks where none exist" and "to know how to facilitate and maintain existing networks" (Heath, 2005, p. 565).

Reservations about the way public relations has adopted network theory relate to its abuse by an organizational self-interest approach. Kent *et al.* (2016) argued that public relations scholars have imported network theories from business and management studies and used organizational power to manipulate other organizations within the network and control it. They suggested a "focus on ethical questions surrounding power in network theory" (p. 92) and offered an approach that "endorses connecting organizations and emphasizes the collective good" (p. 91).

Our review of the public relations literature on disaster management and on the importance of networks in disaster response led us to our third research question:

RQ3. What can disaster managers learn from public relations practitioners about building community resilience to natural disasters?

The impact of culture on community resilience

A community's cultural values have been identified as a factor in disaster resilience. Paton *et al.* (2017) related to the individualism–collectivism (I–C) dimension identified by Hofstede (1997) as one of the cultural constructs on a list that also included power distance, masculinity–femininity and uncertainty avoidance. Individualistic and collectivistic characteristics of culture influence the way people interpret disaster preparedness and mitigation. Social and individual factors such as collective efficacy, outcome expectancy, community participation, empowerment and trust affect people's interpretations of risk and decisions about adopting measures that might increase their disaster resilience (Becker *et al.*, 2012).

Some scholars have discussed religion as influencing how people relate to disasters (Alexander, 2005; Gianisa and Loic Le, 2018; Yari *et al.*, 2019). Often, the impact of religion on response to disasters is considered in Western and Eurocentric terms, where its influence is regarded as irrational and negative. For example: "Catastrophe is once again an 'Act of God' a punishment for sins committed part of an inscrutable higher plan" (Alexander, 2005, p. 37). This fatalistic attitude is represented as failure to positively prepare communities for disasters and build resilience. Therefore, to be effective and inclusive of different cultural understandings of disasters, it is advised that campaigns involve religious leaders in communication on disaster preparedness (Yari *et al.*, 2019).

Culture has only become a focus of public relations scholarship in the last decade (See Bardhan and Weaver, 2011; Edwards and Hodges, 2011; Sriramesh and Vercic, 2012). According to Sriramesh (2010), "culture (both societal and corporate) can be viewed as an 'environmental variable' that influences public relations practice" (p. 698). In turn, Hallahan (2013) noted how "cultural theorists have examined the problems related to universalism versus particularism of public relations practices and how premises of public relations practice must be adapted to particular communities or cultures" (p. 168).

Our fourth research question emerged from the literature on cultural considerations in disaster management:

RQ4. Do sociocultural values play a role in building community resilience to natural disasters?

In the next section, we outline the empirical research study we undertook to investigate our research questions. We begin by explaining the national contexts in which the study was conducted.

Empirical research

The research context

We adopted a qualitative approach to investigate the research questions and conducted the research study in two different national contexts: Sri Lanka and New Zealand. While both these island nations are prone to natural disasters, they were a convenience sample based on the countries of residence of the co-authors, with the first author being a citizen of Sri Lanka and the second and third authors residing in New Zealand. These contexts provided an opportunity to assess how the less developed country with more collectivist and hierarchical cultural leanings of Sri Lanka and the more developed, egalitarian and individualist culture of New Zealand might produce different understandings of and approaches to manage

community resilience. It is important to provide some detail about each of these nations and their cultural biases as the backdrop for the research study.

Sri Lanka is located in the Indian Ocean off the south-east tip of India. With steep topography and heavy annual rainfall, it commonly not only experiences seasonal flooding and landslides but also extreme natural disasters through cyclones, droughts and tsunamis. The population is over 21.4 m, with the largest ethnic group comprising Sinhalese (74.9%), followed by Tamils (11.2%) and Moors (7.9%) (UN Office for Disaster Risk Reduction, 2019); Sinhala and Tamil are Sri Lanka's official languages. Most Sri Lankans (72%) live in rural areas, and most are Buddhist (70%), with other religions comprising, respectively, Hinduism, Islam and Christianity. Ethnic and religious divisions as well as economic, class and regional inequalities contribute to high power–distance ratios in Sri Lanka; the country, which is politically democratic, is hierarchical in terms of Hofstede's cultural dimensions (Irfan, 2016). It also ranks as a feminine and collectivist culture which values relationships over the completion of tasks and is moderately tolerant of uncertainty and risk taking (Irfan, 2016).

Following the tsunami which hit Sri Lanka in 2004, killing over 30,000 people, the National Disaster Management Act of 2005 established the Ministry of Disaster Management, the National Council for Disaster Management and its operative arm which manages activities before, during and after disasters, the Disaster Management Centre (DMC) (UN Office for Disaster Risk Reduction, 2019). DMC units are situated within each of Sri Lanka's 25 districts and coordinate with emergency response and local and international NGOs and community organizations to manage disasters. In Sri Lanka, poverty and people becoming accustomed to disasters have been cited as a major impediment to risk reduction work (UN Office for Disaster Risk Reduction, 2019).

New Zealand is located on the Circum-Pacific seismic belt and is susceptible to earthquakes, volcanic eruptions, floods and storms. The population is five million, with the largest demographic comprising those of European descent (70%), followed by indigenous Māori (16%), those of Asian descent (15%) and Pacific Islanders (9%). New Zealand is primarily an egalitarian, secular and individualistic culture, described as having a "self-concept that is relatively independent of the social situation and in which achieving personal goals is a prominent objective. If collective action occurs, it reflects personal choice regarding individual levels of collaboration and cooperation rather than a cultural predisposition" (Jang et al., 2016). Traditionally, indigenous Māori were collectivist and community-orientated, in contrast to the individualist culture of the dominant Europeans. However, the widespread urbanization of Māori and ubiquity of neoliberal economic ideologies have largely interpellated Māori into the dominant individualist mindset (Edwards and Moore, 2009; Kennedy, 2017). In terms of Hofstede's cultural dimensions, New Zealand scores somewhat low in the hierarchical power–distance ratio, high on individualism and moderately in relation to uncertainty avoidance and masculinity (Murphy, 1999).

In New Zealand, the Ministry of Civil Defence and Emergency Management manages disasters. This ministry has a disaster relief strategy coordinated with the Ministries of Health, Agriculture and Forestry, Foreign Affairs and Trade, District and City Councils, Emergency Services and the Red Cross. These organizations function as a network that share information and coordinate disaster management activities.

Method
For this research, data were gathered via in-depth interviews with disaster managers and communicators who could provide expert evidence based on extensive experience in managing communities during natural disasters. Expert knowledge is a recognized source for gaining insights into the investigated issues as experts "operate on the basis of intimate knowledge of several thousand concrete cases in their area of expertise" (Flyvbjerg, 2011, p. 303). Interviewees were selected from lists of disaster management and emergency service

organizations to ensure that data represented relevant governmental, non-governmental and non-profit organizations. The Ministry of Disaster Management of Sri Lanka and the Ministry of Civil Defence and Emergency Management in New Zealand provided lists of organizations involved in disaster management. The first author also attended the First New Zealand Conference on Disaster Communication in 2014, in Auckland, New Zealand, and gained further access to the industry. From these contacts, a purposive sample of 25 individuals was interviewed in each country. Of the Sri Lankan interviewees, 16 were directors in national or district government departments contributing to disaster management, four were media spokespeople from each of the police, army, navy and air force, four worked in communication manager roles for international NGOs and one for a national NGO. In New Zealand, three interviewees held disaster manager roles in government ministries, nine held communication manager roles in local and city councils, five were communication representatives from the emergency services and one was a communication manager for the Red Cross.

The interviews took place in 2014, were conducted in Sinhalese in Sri Lanka and in English in New Zealand, and all were conducted face to face in the interviewees' offices lasting between an hour and an hour and a half. An additional expert interview with Sioux Campbell (who agreed to be identified for this paper), a New Zealand public relations expert who moved to a full-time job in charge of building community resilience for a local council in Australia, was conducted through telephone in May 2019. Ms. Campbell shared her experience and provided valuable insights, especially on the need to understand different communities' cultures and values in preparation for disasters.

A semi-structured interview method was the most suitable for this research as it not only comprises a standard set of questions but also provides opportunities for further probing (Britten, 1995). The interview schedule asked respondents about their role in disaster management, their understanding of community resilience and if and how the organizations they worked for communicated about building resilience in communities. They were also asked whether they were part of a network of organizations working in disaster management and how communications in the network were managed, what communication channels they used and how they took account of cultural values in managing disasters and associated communication. Interviews were recorded, transcribed and translated from Sinhalese to English by the first author. The data were analysed thematically using the software programme NVivo 10 and assessed in terms of commonalities and differences across the interviewees and national contexts, with a particular emphasis placed on identifying markers of culture. The findings are presented using quotations from interviewees without identifying them by name. Sri Lankan interviewees are marked SL with a specific number and New Zealand interviewees are marked with NZ and a number.

Findings
The analysis of interviews with disaster managers in Sri Lanka and New Zealand highlighted some significant differences in what community resilience means, how communication is used to help build community resilience and the role of public relations' skills in that communication in these two contexts. Our findings indicated that the physical, economic and cultural environments in which disaster managers operate play a role in determining how and what they communicate to the community for building its resilience to disasters.

Findings from Sri Lanka
In relation to what community resilience means for those involved in disaster management and its communication in Sri Lanka, interviewees talked about community resilience in terms

of being prepared for the consequences that a natural disaster could bring. A disaster manager who worked for an international NGO explained:

> When you say resilient … it is a kind of preparedness, basically to face such situations in a more prepared manner and also to minimise the devastations and the destructions … So if you are prepared, if you are knowledgeable and if you know signs of disaster, you can take precautionary actions and when it comes to other things like flood, droughts, you know, there are ways of facing them in a better manner if you are knowledgeable and if you have got proper training (SL8).

A number of Sri Lankan interviewees also expressed a fatalistic attitude towards natural disasters and resilience to them. A Sri Lankan government disaster manager (SL1) said "Being a resilient community means we have disasters in this world and people have to face them". Another interviewee working for an international NGO commented that "[Resilience] to natural disasters is, actually, we cannot avoid natural disasters. So, what we can do is to mitigate and build the resilience of the community. So, we want to decrease the vulnerability of the community" (SL2).

In a less developed country such as Sri Lanka, for a community to be resilient requires it to be economically strong enough to bounce back after a natural disaster – poverty is antithetical to resilience. For example, a disaster manager who worked for the government security forces stressed how, in order to be resilient, communities needed to have resources that extend beyond the very basics of life:

> Being resilient means being resilient to physical destruction, so you need economic ability to be resilient. If you are a poor person and if all your wealth is under the mudslide when an earthquake happens that means you are not resilient. To stand up after the event you need financial resources and most of them do not have that (SL3).

In the context of Sri Lanka being an economically developing country, interviewees' emphasized the need for economic and infrastructural developments, the introduction of sustainable livelihoods and the implementation of community-based development before they could concentrate on using communication to build community resilience. For example, a government disaster manager explained how rural Sri Lankans' need to earn a wage creates challenges for building community resilience:

> Even if we ask them not to go to a high risk area like a mountain that is predicted to have a landslide, they go, because they have their livelihoods there. So we cannot stop them going to these risky areas until sustainable livelihoods are introduced (SL4).

Other interviewees described how before Sri Lanka's 2014 Meeriyabedda landslide, which buried 150 houses, killed 16 and left an estimated further 200 missing, people ignored early warnings from the government and refused to leave their villages because they relied on a nearby tea plantation for work.

Sri Lanka's disaster managers considered it the role of local government to provide the resources to help communities recover from such natural disasters. They explained how, because they were so poor, communities were forced to depend on government and charity funding. Consequently, disaster managers play a central role in communicating with and lobbying governments, private and not-for-profit organizations on behalf of the affected people, to secure donations to support the recovery. One communication manager working for a national NGO explained:

> My role is to do the facilitation between our organisation and the Ministry of Disaster Management. . . . . Communication is a key component as we are between donors and the Ministry. . . . Our core information product is [the] situation report. We provide daily situation reports at a disaster. [Based] on our situation reports, the donors come forward (SL13).

While disaster and communication managers lobby governments, private and non-profit organizations after the disaster, they also support disaster preparedness through a range of communication initiatives. These provide structures for disaster response and its evaluation. A manager from an international NGO explained:

> We used posters, banners to communicate the guidelines to the communities. Other than that our project team met the leader of the community group to pass the messages to the other members. We have created community groups in each village and we have appointed a group leader. We train them well in advance, how to deal with flood situations, within their areas. . . . After a disaster we gather all of them and discuss about the success of the process and the weaknesses, and also how to address the faults. Sometimes we use mobile communication to contact the leaders (SL2).

In developing countries, international NGOs, working with local government, play a major role in disaster management. However, some interviewees emphasized the need for these organizations to consult with local rural communities before designing community resilience programmes. A disaster manager working for the Sri Lanka Government (SL7) was critical about how international NGOs can impose their own cultural views on how disasters should be managed and influence local politicians because of the financial support they provide. In contrast, an interviewee who worked for an international NGO said that in relation to the Meeriyabedda landslide, politicians had failed to protect and care for the local community stating that "The government officials should have given them safe places to go. It was a preventable tragedy" (SL8).

As is apparent, sociocultural values played a part in how the Sri Lankan interviewees talked about building community resilience to natural disasters. They also explained that, in their national context, the notion of being resilient was premised on being psychologically healthy to the point of being able to understand what has happened and being prepared to adapt to the change and, in some situations, to start a new life. In this context, several interviewees asserted that some demographic groups in Sri Lanka were set in their ways and were unwilling to be educated. For example, SL9 did not see older people as capable of adaptation and recommended focussing communications on building resilience amongst young people in schools.

According to two government disaster manager interviewees, people who practised Buddhist meditation developed resilience faster than those who did not. For them building resilience is about training the mind to adapt. One interviewee commented that "When people do meditation, they are mindful, and it helps them to be in the present moment and forget the past" (SL11). Buddhist principles such as "anitya" (the impermanence of things) were seen as helping communities to heal through the idea that neither suffering nor the material comforts of life are everlasting. Traditional knowledge was also identified as contributing to building resilient communities in Sri Lanka. One interviewee (SL3) spoke about rural communities' ability to identify signs of drought and use traditional systems to deal with it.

Sri Lankan disaster managers saw Sri Lankan collectivistic culture as an asset in building resilience. A government disaster manager explained how they used a strategy called "community for community": "We train a group of people from each community and we know that they help other people" (SL12). She described how they trained a community that was often hit by floods to use boats and rescue the whole village as the area was inaccessible to external emergency services. It was noted that often villages consisted of an extended family related to each other with an already very strong sense of community.

In the next section, we consider New Zealand-based disaster managers' experiences with building resilient communities.

Findings from New Zealand
For New Zealand-based disaster managers, building resilient communities meant improving the adaptive capacities of individuals rather than communities to withstand the effects of

natural disasters. This included the ability of individuals to ask for help from the right people at the right time, connecting with support networks and keeping up to date with information about potential or actual disaster situations.

New Zealand-based disaster managers primarily operated on the assumption that individual resilience leads to community resilience and promote capabilities that enable an individual to withstand disasters on his/her own without support from others. For example, a government disaster manager said that "How I am resilient as a person with my emotions and with my focus to survive and overcome and restore by myself is the resilience" (NZ1). Individual resilience was valued by New Zealand-based disaster managers as the most important factor that would contribute to wider community resilience.

Recalling his memories of the 2011 Christchurch earthquake, an interviewee who works as a disaster manager for a governmental organization commented that people did not like to depend on outside support after the earthquake

> We saw in Christchurch that our elderly residents, as New Zealanders they have been through the war and have lived through wars, they know what it is like to have no power, no heating, no water; they were sitting in their homes without, not asking for help. They were injured, but they did not want to ask for help, because they just wanted to get on; that was the resilience (NZ2).

New Zealand-based disaster managers do not try to cultivate new qualities of resilience within individuals and communities, rather they try to build on an existing individualistic culture of self-reliance in providing information about how to prepare for and survive a natural disaster. A disaster manager working for the government explained that "After an incident you have to look after yourself for three days. Nobody will be able to come to you. If you are prepared for that first three days, you are resilient" (NZ3).

Similarly, a disaster manager working for an international NGO operating in New Zealand emphasized, "For me, it is like a rubber band. You know after a natural disaster you have to have capacity to bounce back and you have the tools to do that yourself" (NZ4). In this context, the disaster managers' role is to communicate to individuals about the tools needed to survive and adapt in a disaster situation; it is the individual's responsibility to then access and use the tools themselves. One interviewee explained:

> We encourage them to be resilient within their own community even if they become isolated, because their roads are blocked, their telecommunications are down [and] no one can get to them. . . . They know how to talk to each other when power is off and be able to be in touch. This is what we define as resilience, what we are focusing on is "if you lost what you got today, how would you cope, what is there for you and how would you use it?" (NZ3).

While New Zealand-based disaster managers emphasized the importance of individual resilience, the second major theme in the New Zealand data related to their seeing a need to promote awareness about how to use support networks in disaster situations. A communication manager affiliated with an international NGO explained:

> I think being resilient in a natural disaster in terms of the communities is having support networks and having people that you can call upon. So that no matter what happens to you or your family there are relationships that you already have . . . and get help through (NZ5).

However, the individualistic culture of New Zealand created challenges for building community resilience. New Zealand-based disaster managers spoke about having to motivate and train New Zealanders to ask for help from the right people at the right time. One government disaster manager explained that "Even when people were injured, they did not want to ask for help, because they just wanted to get on. That was the resilience; they just want to be resilient. But we find these people, we tell [them], we can help you" (NZ2).

New Zealand-based disaster managers also spoke about the importance of ensuring people know how to communicate with the right support services and how "communication" might take on different meanings in the disaster context. While modern communication and information systems are important in a disaster event, digital information and communication systems are not to be relied on when a disaster strikes. One interviewee explained how people need to be connected even when there is no power available to run digital communication devices: "If they know how to talk to each other when [the] power is off and be able to be in touch, this is what we define as resilience" (NZ3). Traditional media – such as radio – were mentioned as effective and reliable channels of communication during a disaster.

In addition to the role played by media and community neighbourly networks, in New Zealand building community resilience also depends on effective communication between the network of organizations that provide emergency services – police, hospitals, councils and transportation services, for example. According to Ms. Sioux Campbell, the public relations practitioner we interviewed in 2019 who had worked in New Zealand, sharing case studies and knowledge in preparation for disasters across networks online and offline is an important means of building community resilience. Networking was considered important not only as a means to develop the relationships amongst the community members but also as a way to build relationships between the community and the disaster management agencies and between the emergency services themselves.

Additional insights on the use of public relations in disaster management
The interview with Ms. Sioux Campbell, the disaster management community resilience officer, identified the contribution that public relations' skills can make to building community resilience. She described her public relations and community engagement experience as vital to understanding the communities she was working with and to developing crucial relationships with a network of organizations involved in disaster management. She stated that "Disaster managers are focused on procedures, and this is important. However, procedure would not solve everything. We have to research each community's cultural components and limitations and communicate accordingly". She also emphasized the value of information such as community mapping, identifying vulnerable communities and on-the-ground community activities to continually build knowledge and understanding and, through these, community resilience. Her examples included work for the deaf community that needed different communication channels and support and immigrant communities who had a limited knowledge of English language and who were not familiar with Western cultural cues. "Thanks to my communication skills I was able to broadcast via community radio and facilitate workshops with the help of a translator". She also emphasized the importance of building community trust in the organizations that deliver emergency services. Another important skill she brought to her current role as a disaster management community resilience officer is an ability to know who to contact and how: "it is about networking. There are offline and online networks of disaster managers on regional, national, and international levels. They share case studies, conversations, and management tools. It is important to maintain communication on these platforms".
The strategic plan Sioux Campbell developed for her region stated

> Although our goal is for people to be responsible for themselves, regular, wide dissemination of information and encouragement to use it will continue to be critical... The greatest challenge is how to make our information compelling and significant in day-to-day life.

This interviewee presents the view that a unique contribution to disaster management can be made through public relations practitioners' expertise in building relationships within networks and maintaining an ongoing interorganizational communication.

Discussion
This paper provides insights into disaster and communication managers' understanding of community resilience in the context of two different cultural environments. In response to the research questions, "What does community resilience mean for disaster managers?" and "How do disaster managers use communication to build community resilience?", disaster and communication managers from both countries stressed the ability of communities and individuals to bounce back from adversity; however, they reported different cultural orientations as essential factors for building effective community resilience.

In Sri Lanka, there was a need to use public relations' lobbying skills to influence politicians, to support communities' material and economic needs for safe housing and sustainable livelihoods, to work with the religious mindset and to motivate people to be proactive and prepare for disasters. Sri Lanka's collectivist culture and the extended family structures were identified as assets that helped disseminate relief agencies' messages across communities. In contrast, in New Zealand's economically developed, secular, egalitarian and individualistic culture, disaster managers identified a need to persuade self-reliant people to seek help. Their focus was on improving individual adaptive capacities as a means to develop community resilience.

In response to the research question "What can disaster managers learn from public relations practitioners about building community resilience to natural disasters?", public relations' expertise in communication, community relations and networking is an unrealized asset for disaster management organizations. Public relations' approaches to build community resilience includes research for better understanding of the sociocultural environments of the communities as well as facilitating networks within communities and networks of agencies that are responsible for mitigating the negative impact of natural disasters. The ability of public relations practitioners to lobby local and regional governments and businesses to help secure safer living environments, funding and work opportunities for communities is also an important skill in building community resilience. Furthermore, through community relations work, public relations practitioners employed by executives who serve disaster management organizations, especially in international NGOs, could help give voice to the needs of the poor and, in turn, support the development of their resilience to disasters. Conducting research and analysis of community attributes is a public relations' skill that could help disaster managers meet challenges and adjust messages to the specific sociocultural environment in which they function.

In answer to the research question "Do socio-cultural values play a role in building community resilience for natural disasters?", cultural values do significantly impact on perceptions of community resilience in the context of disaster management. Sri Lanka's developing economy, collectivist and religious culture and moderate tolerance for risk, as well as the frequency of natural disasters create both challenges and opportunities for building community resilience. On the one hand, the levels of poverty in which people live make it hard for communities to "bounce back" from disasters. On the other hand, strong family community ties and Buddhist approaches to life mean that people have social and psychological structures of support to adapt to extreme events. This compares with New Zealand, where disaster managers not only work with the existing individualistic culture and use a psychological approach to build community resilience but also need to encourage people to generate wider social connections and networks that will support them in times of need. The research findings indicated the importance of understanding specific communities' cultures when designing a programme for building community resilience to natural disasters.

This study also confirms that building resilient communities is not the responsibility of one organization but a collaborative process involving communication amongst networks of communities and organizations. This aligns with Chaskin's (2008) notion of "a network of

relations" and a "unit of collective action" as essential factors in building community resilience (p. 73).

This paper's argument for a role for public relations in the evolving field of natural disaster management contributes a new dimension to public relations' scholarship on crisis management. It distinguishes between crisis management and natural disaster management communication and adds to this a distinction between an organization-centred approach to crisis aiming to protect the organization's reputation and a community approach to natural disaster management focussed on community empowerment. By engaging in building community resilience, public relations practitioners who serve organizations that manage natural disasters could make a significant contribution to social well-being.

Limitations and further research
There are limitations to this study. While equating culture with nation makes research feasible in terms of scope, many nations are multicultural and any generalization about the specific features cannot do justice to their complex realities (Bhardan and Weaver, 2011). We describe New Zealand's culture as mainly individualistic and part of the Western sociocultural construct, although this does not necessarily account for the cultural leanings of some indigenous Māori, whose collectivist dimensions reflect a commitment to community goals. In Sri Lanka, communicators trying to build community resilience to disasters have to take three ethnic communities, three religions and two languages into consideration when crafting their messages, and we have been limited in detail we can provide about this.

In terms of future research, we urge investigation into how public relations' concepts and skills can be used to support community development and resilience in times of crisis, with a very urgent and pertinent example being global pandemic crises. Coronavirus disease (COVID-19) provides extraordinary opportunities to explore how public relations can, in different cultural contexts, support interorganizational networking, lobbying and campaigning for new ways of imagining and implementing community survival, resilience and empowerment.

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