

Title

Nonprofit and public sector interorganizational collaboration in disaster recovery: lessons from the field

Abstract

Recent disasters have identified that collaboration between sectors is often fraught with complexity and resultant failures. This article explores interorganizational collaboration in the nonprofit and public sectors during the disaster recovery efforts after a catastrophic flooding event. Based on a series of in-depth interviews with practitioners involved in the recovery following a flooding event, the findings offer insights into the barriers and mechanisms used to facilitate collaboration. In disaster recovery, collaboration is reliant on established interorganizational structures and trusting relationships. Role clarity is the link between these two characteristics and this article posits the association between this and the concept of swift trust to facilitate collaboration. Theoretically, this article extends an existing multidimensional model of collaboration into the context of emergency management. Importantly it also offers a tangible output for industry in the form of an aide mémoire for collaborating in disaster recovery.

Keywords

Collaboration, disaster, emergency management, swift trust

Introduction

Recent failures of interorganizational collaboration as observed during numerous recent disasters, require those involved in emergency management arrangements to collaborate holistically. Interorganizational collaboration is imperative in the response to, and recovery

from any type of disaster. The response phase of a disaster typically has a short duration of hours, days or weeks. Following this, the recovery phase of a disaster often spans months and years to return the affected communities to a state of normality. During this recovery phase the economic and social costs can far often outweigh the financial burden of the immediate response (Deloitte, 2016). In the United States alone, the federal government spent a total of \$136 billion from fiscal year 2011 to 2013 on disaster relief and recovery (Weiss & Weidman, 2013). Recovery efforts require input from multiple stakeholders to restore community wellbeing. This always involves organizations from the public sector and typically, also those representing the nonprofit sector. In addition, the nonprofit sector will often provide the lead role in the disaster recovery efforts if the disaster is linked to war or internal conflict as the local public sector capacity and political will to act is often severely limited (Stephenson & Schnitzer, 2006).

Interorganizational collaboration in emergency management is vital but can be challenging, so it is important to understand what facilitates and constrains collaboration in these circumstances. Thus, the research question in this article is, *what are the barriers and enablers of interorganizational collaboration between the nonprofit and public sectors in disaster recovery?* This article adopts an in-depth empirical case study approach of a recent Australian disaster to explore the process dimensions of interorganizational collaboration in the recovery phase of emergency management. In Australia, the response and initial recovery phases of a disaster are almost always followed by formal and complex post-event inquiries to identify the cause, consequences and actions of those involved (Cole, Dovers, Gough, & Eburn, 2018; Eburn & Dovers, 2015). Eburn and Dovers (2015) recommend that as a society, we need to move beyond developing policy by royal commission and instead seek lessons from positive as well as negative aspects directly from those involved in disasters. We address this recommendation by exploring the negative and positive aspects of

interorganizational collaboration with people involved in the chosen disaster and aligning the findings to the five dimensions of collaboration described by Thomson, Perry and Miller (2007).

This article is structured as follows. After describing the current research on interorganizational collaboration between the nonprofit and public sectors in emergency management, it presents the methods and chosen case study. Next, the findings analyze the challenges of interorganizational collaboration and mechanisms used to facilitate collaborative partnerships. The discussion section provides a theoretical contribution and offers practitioners from the nonprofit and public sectors tangible outcomes that can be applied in current practice to enhance collaboration. Finally, the article concludes with limitations and future research opportunities.

Emergency management collaboration

Collaboration is a term used to describe the relationships between organizations when partners need to work towards a common goal to solve complex societal problems. These relationships are characterized by high levels of interaction (AbouAssi, Makhoul, & Whalen, 2016; Cigler, 2001; Gray, 1989; Huxham & Vangen, 2005). The high levels of interaction needed for collaborative partnerships require several intrinsically linked dimensions. In Thomson, Perry and Miller's (2007) multidimensional framework of collaboration, they offer five components of collaboration: (1) 'administration' that is the implementation and operational management of the agreed mission; (2) 'norms' that are the repeated interaction among partners that establishes reputation for trustworthy behavior; (3) 'governance' involves creating organizational structures that allow participants to solve the collective mission-related problems; (4) 'mutuality' is the shared interests that go beyond an individual organization's mission; and (5) 'autonomy' which is the ability for an organization to

maintain their own distinct identity separate from the collaborative identity. Successful collaboration comprised of these multiple different components will be critical to solve some of society's wicked problems, especially those associated with climate change and natural disasters. A global rise in the frequency and severity of natural disasters means that those involved in emergency management have to collaborate (Mayer & Kenter, 2015; O'Brien, O'Keefe, Gadema, & Swords, 2010).

Emergency management is the managerial function charged with creating the framework within which communities reduce vulnerability to hazards and cope with disasters (FEMA, 2007). The emergency management cycle on which modern emergency management is based defines four phases of emergency management: (1) prevention/mitigation; (2) preparedness; (3) response; and (4) recovery (FEMA, 2007). Emergency management requires communities and organisation's from the nonprofit, public and private sectors to work together to strengthen society's capacity to prevent or mitigate, prepare for, respond to and recover from disasters. Collaboration in emergency management occurs when people from different organizations create and sustain relationships that encourage trust, build consensus, produce, and share ownership of a collective objective (FEMA, 2007; Kamensky & Burlin, 2004). , A willingness to collaborate is an indispensable tool in emergency management to deal with uncertainty and complex extreme events (Arklay, 2015; Waugh & Streib, 2006).

Scholars exploring collaborative relationships in extreme events such as natural disasters (wildfires, tsunamis, hurricanes, earthquakes, etc.) and man-made disasters (environmental incidents, acts of terrorism etc.) have identified the complexities and subsequent challenges in this domain. Notable disasters such as Exxon Valdez, World Trade Center Attacks, Indian Ocean tsunami, Hurricane Katrina and Haiti earthquake have highlighted failures in interorganizational collaboration (Butts, Action, & Marcum, 2012; Comfort & Kapucu, 2006;

Kapucu, 2006; Nolte & Boenigk, 2011; Raju & Becker, 2013; Topper & Carley, 1999).

Recent disasters such as Hurricane Maria continue to point towards failures of collaboration between organizations (FEMA, 2018). Emergency management requires effective interorganizational collaboration in a disaster. The Federal Emergency Management Agency in the United States acknowledge that collaboration characterizes the degree of unity and cooperation that exists between organizations, creating an environment in which coordination can function effectively (FEMA, 2007). To achieve this and provide an adequate response to and recovery from disasters, the nonprofit sector must collaborate with organizations from the public and private sectors. Disasters can overwhelm the resources of governments that are then often reliant on support from the nonprofit sector (Waugh, 2007). Due to the increased reliance on support from nonprofit sector organizations in disasters, there is a raised interest in evaluating how organizations from the nonprofit and public sectors engage in interorganizational collaborations during disasters and how those involved can overcome barriers to collaboration (Hermansson, 2016; Nolte, 2018).

Interorganizational collaboration in the nonprofit and public sectors in disasters

The literature on interorganizational collaboration in emergency management is extensive, and a thorough examination is neither possible nor desirable in this paper. Theoretical contributions exploring interorganizational collaboration in the nonprofit and public sectors in disasters include many case studies. These case studies explore interorganizational collaboration in the nonprofit and public sectors in the preparedness, response and recovery phases of emergency management. A common theme in the literature when exploring the barriers and mechanisms to facilitate interorganizational collaboration in the nonprofit and public sectors, is the importance of interorganizational structures and the relationships between organizations.

Preparedness phase

Chen, Chen, Vertinsky, Yumagulova, and Park (2013) explored how to form and sustain effective collaborative arrangements between governments, businesses, nonprofit organizations and communities to ensure the development of disaster resilient communities. Elements of this research focused on the preparedness phase and identified that repeated collaborative interaction prior to a disaster created personal relationships beyond those offered by formal structures (Chen, Chen, Vertinsky, Yumagulova, & Park, 2013). Also exploring interorganizational collaboration between the nonprofit and public sectors in the preparedness phase of emergency management, Sakamoto (2012) examined collaboration in the context of the Great East Japan Earthquake in 2011. Learning from the disaster, this research identified the importance of a preidentified platform for nonprofit organizations and government that is actively used in the preparedness phase and not just drawn upon in the response phase of a disaster (Sakamoto, 2012). Both articles identified the importance of interorganizational structures but Chen, Chen, Vertinsky, Yumagulova, and Park (2013) also depicted the value of pre-formed relationships in developing a collaborative environment in preparedness activities, an issue that resonates in the response phase.

Response phase

Focusing on the response to the 11 September 2001 attacks on the World Trade Center, Kapucu (2006) studied the emergence of interorganizational collaboration between the nonprofit and public sector in response to this disaster. In the response phase, the collective action by organizations in the nonprofit sector was neither centrally controlled nor directed (Kapucu, 2006). This research identified that despite the lack of a reliable roadmap or formalized structures, organizations in the nonprofit sector responded with unprecedented speed and agility to the urgent humanitarian needs in both the immediate vicinity of the 9/11

attack and in the wider New York region (Kapucu, 2006). The study didn't specify how long the nonprofit sector operated without a 'reliable roadmap' and whether this was throughout the entire immediate response or for a limited time before the public sector realized that the nonprofit sector had to be integrated into existing interorganizational structures. Nevertheless, this contradicts other studies investigating interorganizational collaboration in disasters that imply an inadequacy of interorganizational structures contribute to a lack of collaboration.

Remaining in the United States, following Hurricane Katrina there were a plethora of articles that investigated the failures that plagued multiple aspects and phases of the emergency management cycle. The role of interorganizational collaboration between the nonprofit and public sectors was not immune to this scrutiny. Butts, Action and Marcum (2012) reconstructed the dynamic network of interorganizational collaboration in the nonprofit and public sectors that emerged in response to Hurricane Katrina. This article identified that an enabler of collaboration was the role of a prominent nonprofit organization, the American Red Cross. This organization fulfilled a critical bridging role between organizations and maintained the most number of collaborations with partner organizations during the initial response (Butts et al., 2012). Ordinarily, an expectation in emergency management would be that a government organization would maintain the most collaborative partnerships. However in this instance, this role was maintained by a not for profit and most likely occurred due to the legislated interorganizational structures and unique statutory role of the Red Cross under the then-active National Response Plan.

A study by Simo and Beis (2007) also revealed that in the wake of overwhelming failures of public administration during the response to Hurricanes Katrina, nonprofit involvement in cross-sector collaboration was critical, particularly considering the absence of adequate service provision. This study highlighted the importance of sound administrative arrangements as the nonprofit sector was able to provide acute and longer-term recovery

assistance in the administrative void that followed (Simo & Bies, 2007). Similarly, Robinson, Berrett, and Stone (2006) identified the importance of well-established and coherent administrative arrangements and used two case studies in the Dallas/Fort Worth area during the response to Hurricane Katrina to illustrate the importance of communication and collaboration between nonprofit and public sector organizations in the development of disaster response networks.

Using a data set from aid workers who were active in the response to the 2010 Haiti earthquake, Nolte, Martin and Boenigk (2012) identified the need for administrative mechanisms that enable nonprofit organizations to participate in the broader network of coordination arrangements during a disaster. Administrative arrangements were also identified as a barrier to collaboration twelve years before the Haiti earthquake in Nicaragua during Hurricane Mitch. Rocha and Christoplos (2001) identified that one of the problems that arose during the response was that there was no legal framework setting out the roles of each institution at either a national or local level. As a result, confusion arose regarding who was involved and what their different responsibilities were, and chains of command for assigning different functions during the response (Rocha & Christoplos, 2001). The preceding examples highlight the importance of robust administrative arrangements and a requirement for clearly defined interorganizational structures to facilitate interorganizational collaboration in disasters. However, administrative arrangements are not the only mechanism to facilitate interorganizational collaboration in the response phase of a disaster.

Interorganizational relationships have also been identified as an important mechanism.

The importance of relationships, and especially pre-existing relationships, was evident during the response to the 2010 Haiti earthquake. Martin, Nolte, and Vitolo (2016) identified that even though local knowledge was recognized as an essential attribute for collaborative disaster response to occur, there were challenges integrating local government and local

nonprofit organizations into the overall emergency management arrangements. The collaborative relationships that were successful had pre-existing interaction before the disaster and continued to enhance their collaborative relationships during the response (Martin, Nolte, & Vitolo, 2016). The importance of partnerships in building collaborative relationships is also evident in the literature exploring collaboration in the recovery phase of disasters.

Recovery phase

Coles, Zhuang and Yates (2012) analyzed the maintenance of partnerships during the recovery phase of the 2010 Haiti earthquake and highlighted the importance of actively maintaining partnerships in the response phase if they were expected to be utilized in recovery operations. In a separate article focusing on the recovery phase, Jung, Song, and Park (2018) sought to uncover the dynamic structure of interorganizational emergency management networks after the 2012 typhoons in South Korea. This article identified a requirement to strengthen interdependent relationships on mutual rather than unilateral aid and also described the importance of actively maintaining partnerships in the response phase if they were expected to be utilized in recovery operations (Jung, Song, & Park, 2018).

Opdyke, Leprope, Javernick-Will, Koschmann and Matthew (2017) examined the interorganizational networks and subsequent partnerships that were formed to coordinate resources for infrastructure reconstruction after Typhoon Haiyan in the Philippines. This article identified that despite significant advances in strengthening post-disaster recovery efforts, misaligned strategy and inefficient resource allocation between the nonprofit and public sectors was far too often the norm for infrastructure reconstruction (Opdyke, Leprope, Javernick-Will, & Koschmann, 2017).

The importance of partnerships has led to the identification of administrative arrangements that also encourage the formation of collaborative relationships. Scholars in China have recently identified that a ‘bridged platform’ in the recovery phase, where one independent organization acts as a conduit between organizations in the other sectors, created a more appropriate environment for nonprofit and public sector collaboration in disaster recovery efforts (Xu, Xu, Lu, & Wang, 2018). A theoretical paper by Tatham and Kovacs (2009) explored collaboration in the context of the humanitarian aid supply networks and also identified the importance of pre-established interorganizational structures and relationships. Furthermore, this article posited that the concept of ‘swift trust’ can facilitate interorganizational collaborative relationships as a means of improving relief operations in rapid onset disasters (Tatham & Kovács, 2009).

The literature exploring interorganizational collaboration in disasters has highlighted the importance of pre-established interorganizational structures and relationships between organizations. A crucial element not articulated in the literature is how they are related. The following sections seek to understand the interrelationship between the structures and relationships among organizations from the nonprofit and public sectors in the context of emergency management.

Methods

The epistemological stance of the authors was one of interpretivism as this was motivated by a concern to understand and ‘explain’ the actions and practices of the interviewees in this chosen case study (Hay, 2011). This warranted a research design that was exploratory in nature (Bluhm, Harman, Lee, & Mitchell, 2011) but also drew upon an established framework to complement the thematic analysis of the data. This approach allowed for the interchange of inductive and deductive methods of analysis (Eisenhardt, 1989). A qualitative

methodology was justified due to the limited previous empirical research exploring collaboration between nonprofit and public sector organizations specifically in the recovery phase of emergency management (Jung et al., 2018; Xu et al., 2018). This article followed recommendations provided by Ospina et al (2017) to ensure qualitative methodological rigor. A single intensively studied case was chosen to improve how people can frame and solve collective problems that arise from an actual event.

Case Study

Tasmania is an Australian state and an island located approximately 150 miles (240 kilometers) south of mainland Australia. The state has a land mass of approximately 26,000 square miles (68,000 square kilometers) and is comparable in size to the state of West Virginia in the United States or the Republic of Ireland in the European Union. With a population of approximately 500,000, the state is sparsely populated.

In June 2016, extensive flooding impacted 20 of the State's 29 local councils. As the extent of the damage quickly became apparent, the Insurance Council of Australia designated the Tasmanian floods 'catastrophic'. There were 4 fatalities and the total damages bill was estimated to be \$180 million (Australian Dollars) (Tasmanian Government, 2017). While major flooding and flash-flooding are a common feature of the Tasmanian landscape, the scale and impact of the 2016 floods were of comparable magnitude to the devastating 1929 floods when 22 people died. The Joint Australian and Tasmanian Government's National Disaster Relief and Recovery Arrangements were activated due to the significance of the flooding and impact on local communities. This case study was chosen as the following Independent Review identified disconnects between organizations from the nonprofit and public sectors in the recovery efforts (Blake, 2017).

Sample

A purposive sampling technique was deemed most appropriate as the study sought to generate a sample that would allow for exploration of the research question (Teddlie & Yu, 2007). To shape the purposeful sample, a snowballing technique was employed as an effective tool to obtain wider access to the group of potential interviewees (Noy, 2008). Initially, 40 potential interviewees were identified. This number was consistent with the recommended sample size for qualitative research whereby 30-50 interviews (Morse, 1994) is recommended and 25 participants is acceptable for smaller projects (Charmaz, 2006) such as this one. It was envisaged that conducting 40 interviews would allow for theme saturation.

Data collection

The data was based on a series of in-depth semi-structured interviews. Semi-structured interviews were chosen due to the flexibility of this method, combined with the rich and illuminating material it could yield (Denzin & Lincoln, 2005). Additionally, the use of semi-structured individual interviews allowed for the unanticipated and spontaneous responses that emerge through open-ended questioning (Babbie, 2012). A list of nonprofit and public sector organizations that were involved in the flood recovery efforts was identified in the Report of the Independent Review into the Tasmanian Floods of June and July 2016 (Blake 2017). A member of the Tasmanian Government 2016 Flood Recovery Taskforce was approached to identify key contacts in each of the organizations in the review. Details of personnel from the nonprofit and public sectors provided access to other central people involved in the recovery process. Through this process, 40 potential interviewees were identified. Due to unforeseen circumstances, one person had to withdraw towards the end of the interview process, so a total of 39 people were interviewed. The split between interviewees from the nonprofit and public sector was relatively even. Table 1 summarizes the profile of interviewees.

[Table 1 here]

The lead author conducted all the interviews. Due to the location of the interviewees, 16 interviews were conducted face to face and 23 by telephone. The average duration of each interview was 31 minutes. This generated over 20 hours of audio recording that was professionally transcribed, resulting in a total data set of over 190,000 words. The study asked interviewees to recount what they believed worked well in the collaborative efforts between organizations from the nonprofit and public sectors and areas that could be improved. This line of questioning sought to identify barriers and enablers to the participant's collaborative practice.

Data analysis

Analysis of the data was a partnership between academia and the nonprofit sector. The second author is a practitioner who was not involved in the 2016 Tasmanian Floods but has extensive experience in disaster recovery arrangements in other Australian states. In addition, the second author works for a national nonprofit organization and is therefore suitably detached from the state based nonprofit organizations in this article. Importantly, the insights of reflective practitioners can “speak truth to academics” in the broad sense of providing information, analysis and counsel concerning how operations actually occur in practice and candid commentary on scholarly writings (Kernaghan, 2009). Quantitative researchers pursue value-free, unbiased data. This is in contrast to qualitative researchers that tend to illuminate their and their participants' value orientations, although attempt to hold them in abeyance to pursue credible conclusions (Brower, Abolafia, & Carr, 2000). In adopting an interpretivist approach, this article applied the standards of credibility, dependability, confirmability, and transferability as described by Dodge, Ospina and Foldy (2005). Specifically, this article

encompasses thick descriptions supported by raw data, and is transparent in its methodology (Dodge, Ospina, & Foldy, 2012). To ensure validity and reliability during data analysis, a coding framework was developed by the first author. To mitigate against the potential effects of confirmation bias from the first author, the second author reapplied the coding framework to a randomly selected number of extracts from the data set. Using descriptors for each dimension, subtheme and final theme, the second author matched extracts from the raw data and thus replicated each of the three stages in the coding process. Using Cohen's kappa coefficient statistical measurement, the authors achieved an inter-rater reliability of 88.3% indicating an excellent or almost perfect level of agreement (Fleiss, Levin, & Paik, 2003; Landis & Koch, 1977). Codes that were not initially agreed upon were revisited and discussed until there was mutual agreement between the authors. The software QSR-NVivo 11 was used to facilitate the analysis of data and theoretical development (Hutchison, Johnston, & Breckon, 2010).

Process tracing was used as an analytical approach to code the data. This was deemed a suitable approach as the authors sought to use the disaster in this case study to link the participants descriptions of the event to explain the barriers and enablers of collaboration between organizations from the nonprofit and public sectors (Vennesson, 2008). The authors acknowledge that tracing each part of a complex mechanism requires deploying enormous analytical resources. Therefore, this article engaged in a form of process tracing "lite" where mechanisms were treated in a minimalist fashion (Beach, 2017) while still maintaining analytical rigor. Coding of the data involved three stages of analysis. In the first stage, the initial themes used to code the data were based on the five dimensions articulated in Thomson et. al. (2007) multidimensional model of collaboration: (1) administration: (2) norms; (3) governance; (4) mutuality; and (5) autonomy. This model was initially developed to address the lack of a common theory of collaboration. The dimensions were considered

suitable for this study as they sought to categorize generic and not industry-specific elements of collaboration (Roberts, van Wyk, & Dhanpat, 2017). In their recommendations for future research, Thomson et al. (2007) encourage the exploration of the factors that influence variations in the five dimensions of collaboration across widely different contexts. To date, there is limited documented evidence that this model or elements of it have been used to explain collaboration in the context of emergency management. The second stage of coding involved the identification of subthemes for each dimension that represented the barriers to collaboration and mechanisms used to overcome any challenges. After several waves of coding, the third stage involved the collation of the subthemes for each dimension into the proposed final theme that reflected collaborative practice in the context of disaster recovery. Table 2 offers the stages of coding including the dimension, subthemes, final theme and final finding. Distribution of the raw data in QSR-NVivo 11 indicated that all the participants contributed to at least four of the dimensions. Table 3 summarizes the total number of participants who discussed elements of each dimension as per the descriptors in the coding framework, and the total number of references for that dimension.

[Table 2 here]

[Table 3 here]

Findings

The following section provides an analysis of the data and identifies the barriers and enablers of collaboration during the disaster recovery phase. The presentation of the findings illustrate

the iterative nature of the analysis as the descriptions move beyond Thomson et al. (2007) five dimensions to the subthemes and then the final theme. To provide context for the reader, several quotes from the raw data are included. The findings suggest that collaboration in disaster recovery is reliant on role clarity, trusting relationships and interorganizational structures.

Administration: role clarity

Poor coordination was identified as a challenge to collaboration during the floods. Those involved in the disaster recovery efforts from nonprofit organizations expressed frustration that in the early stages there was limited coordination and direction provided by the public sector. Coordination failures in emergency management are well documented in the response phase (Comfort & Kapucu, 2006; Wise, 2006). In the recovery phase, coordination is critical when organizations involved represent different sectors that often have diverse organizational structures. Reflecting upon the early stages of the recovery phase, a participant from the public sector explained,

“It wasn’t [initially] well-coordinated from the government perspective, we didn’t grab it early. But I know why we didn’t, [it was] because we were so overwhelmed with so many other things, and in reality, we still only had limited resources. Although you put out the view, or at least the perception that you know, all of the state’s resources are behind you, [but] in reality it was a real struggle at first” (PS18).

Ambiguity regarding the administration of the overall recovery operation was acknowledged as a barrier to collaboration. Organizations not frequently involved in disaster recovery efforts require the coordinated interorganizational approach to be made clear. Similarly, interorganizational administrative arrangements need to be clearly defined. The data highlighted that when an organization’s role, responsibility or capability was not clearly

defined, there was confusion among organization's regarding who should be doing what. The following participant from the nonprofit sector described the challenges associated with a lack of role clarity,

“That’s where it sort of fell down a bit, we weren’t really across what we had to do when the balloon went up. We were unprepared, we had the funding, we had the people on deck, but we actually didn’t know what we had to do. I don’t think they [the public sector] really understood how we worked either. When the floods were on, we didn’t have any idea how or where we fit, we didn’t even understand that local governments ran it in their areas” (NFP4).

Conversely, a clear understanding of roles and responsibilities was recognized as a mechanism that facilitated collaboration between organizations from the two sectors, as those involved understood what they needed to do to achieve the overarching mission. The reciprocal understanding of each organization’s roles across both sectors was articulated by the following participant from the nonprofit sector,

“We had a good working relationship with the [public sector] departments, we knew what each other could offer and so that meant that we weren’t starting from scratch. I think the other thing is that over the period of the last ten years as each disaster has hit, there has been some really good feedback to build upon. So that has also helped government understand the roles non-for-profit can play in disaster recovery and where and when they should actually get pulled into action” (NFP10).

Norms: trusting relationships

Interorganizational trust can be defined as the intentional ,behavioral suspension of vulnerability by a trustor on the basis of positive expectations about a trustee (Oomsels, Callens, Vanschoenwinkel, & Bouckaert, 2019). Participants in the study often referred to having trusting relationships with other organizations during the flood recovery period.

Themes that emerged from this data were firstly that trustworthiness between organizations from both sectors was often made easier due to pre-existing relationships, and secondly that stakeholder expectations were sometimes unrealistic. Pre-existing relationships meant that organizations already had knowledge of other organization's capabilities. This trust was also extended to the delegated individual from an organization that was sent as a liaison to the recovery taskforce. Many of the participants highlighted that Tasmania's island status and small population invariably meant that someone always knew someone by 'six degrees of separation'. The following participant from the public sector articulated these geographical advantages,

"I think that the pure size of the state both geographically and by population is a benefit for emergency management purposes because we are closer to our partners. I talk to my equivalent colleagues on the mainland [of Australia] and they are big jurisdictions with big budgets and it doesn't make them any better and sometimes they have more problems with relationships. Because our relationships are [already] in existence, or through someone you know who knows someone who knows someone, you can pick the phone up [or] send an email and pretty quickly and you'll probably be in touch with the right person" (PS12).

Pre-existing knowledge of other stakeholder's capabilities, often built over time, is a concept referred to as interpositional knowledge (Ford & Schmidt, 2000). In this event, this knowledge contributed to forging and strengthening trusting relationships. However, due to the prolonged period of disaster recovery efforts and associated effects on fatigue, many organizations utilized personnel who were not regularly involved with emergency management. These personnel did not have the time to build trusting relationships and the data indicated that a lack of pre-existing relationships meant that this was initially a barrier to collaboration. This also led to stakeholders from other organizations having unrealistic expectations of their counterparts. In addition, key person dependencies and the failures

associated with single person criticality were identified as challenges to collaborating. Single person criticality at the individual level can lead to a lack of interpersonal trust between two counterparts from different organizations that may then lead to a loss of interorganizational trust (Zaheer, McEvily, & Perrone, 1998). The following statement by a participant from the public sector highlighted the challenge of single person criticality,

“We’ve got an MOU [memorandum of understanding] or a deed with [name of organization] in relation to the management of spontaneous volunteers. But the problem with that of course is an MOU you write it up, [but] it’s not about having the document, it’s about having the relationships and we really lost contact when CEO’s move and the relationships also go, then new people come in” (PS11).

The development of trust is the first element of shared motivation and is intrinsically linked to the capacity for joint action (Emerson, Nabatchi, & Balogh, 2012). To generate the desired outcomes that require collaboration necessitates organizational structures that can manage repeated interactions over time (Emerson et al., 2012).

Governance: interorganizational structures

Among the factors that may affect the success or the failure of a collaboration are the structural and governance arrangements that delineate authority and responsibilities (O’Leary & Vij, 2012). The data indicated a lack of predefined organizational structures that should govern early stage recovery efforts, that meant some organizations had no understanding of where they fitted into the overarching mission to benefit the affected community. This was echoed from the following participant representing the nonprofit sector,

“It was sort of based on prior bits and pieces and stuff but there was no overarching framework. Now you know, I probably would have assumed that state government would

have had something you know, would have had a pretty solid framework to base their program on, but it became apparent that they didn't" (NFP16).

A deficiency of formal structures resulted in communication challenges and a lack of sharing of information between organizations. Information sharing is critical when sharing resources. Both the nonprofit and public sectors gain important resources through partnering (Gazley & Brudney, 2007) but this can be hampered by delayed or insufficient information. The exchange of timely information is critical in emergency management so organizations can gain and maintain situational awareness of the unfolding events. This not only requires formal structures describing how information should be shared that are explained in policies and plans, but often requires physical structures such as dedicated information and communications technology platforms that are accessible to all organizations involved. The next extract from a participant in the nonprofit sector summarizes these challenges,

"[Regarding the] progression of the incident and having the right information at hand, we didn't get that at all. I had to get it by going around the structure, I had to go on Facebook, I had to search council websites and the SES [State Emergency Service] website for information. (NFP2).

Mutuality: community benefit

The data indicated that mutually beneficial interdependencies were a "given" as the collective purpose of the collaborative venture was to assist the affected communities. Participants stressed the importance of 'working together' to achieve a 'common goal' and that these were the strengths in the collaborative relationships built during the flood recovery period. The following participant from the public sector recapped this belief,

"I think during the floods, one of the important things was that everyone was on the same page about wanting to get the right outcome. This was the same with public, NGO [non-

government organization] and private sector stakeholders that no one was resistant to any of the genuine efforts that we were making to get the best outcome for those that needed our help” (PS17).

Autonomy: acknowledgement

The dimension of autonomy was the least described by any of the participants. This could be due to the inferred mutuality and a collective mission to serve the community as opposed to collaborative ventures in the private sector between organizations that invariably involve financial risk and still necessitate semi-autonomous practices (Singh & Mitchell, 2005).

Nevertheless, a negative element that emerged from the data from some organizations in the nonprofit sector was a lack of acknowledgement. This was experienced when there was a potential overlap of services offered by multiple organizations. This was described by the ensuing participant from the nonprofit sector,

“There weren’t actually enough bits of the pie to go around anyway. It seemed like everyone was you know, fighting for some funding to do what they do. Initially in the flood task force information, it seemed that [name of an organization] got a lot of mentions where we didn’t get mentioned and we were doing very similar projects to what they were” (NFP6).

Discussion

Role clarity is fundamental for interorganizational collaboration and needs to be articulated in the administrative arrangements of the interorganizational structures and also needs to be expressed when forming trusting relationships. As identified in the literature and in the findings of this research, interorganizational structures can be a barrier to, and an enabler of, interorganizational collaboration in the nonprofit and public sectors in disaster recovery.

Interorganizational structures in the recovery phase of emergency management require plans that clearly articulate different organization’s roles and responsibilities. In addition,

individuals must clearly understand their own role and that of their own organization to ensure credibility and build trust between stakeholders. To aid the reader, the article offers a typology of the characteristics required for interorganizational collaboration in the nonprofit and public sectors in disaster recovery (Figure 1).

[Figure 1 here]

The typology integrates the findings from the data with the literature on interorganizational collaboration in the nonprofit and public sectors in disasters, to identify attributes that facilitated interorganizational collaboration in this case study. In this context and as articulated in the typology, the dimension of mutuality is the overarching characteristic that binds the collaborative venture and the requirement to benefit the affected community. This is dependent on coherent interorganizational structures and trusting relationships, both of which are reliant on role clarity. It should be noted that the dimension of autonomy was not included in this typology. This dimension was the least described by any of the participants as autonomous practices were not conducive to the collective mission to serve the community. Therefore, this dimension was omitted from the typology.

The principle of mutuality is evident in the collaboration framework offered by Myer and Kenter (2015) and aligns to their component of ‘shared vision’. This work also acknowledges the important role that organizational structures have in building the necessary channels to achieve consensus (Mayer & Kenter, 2015). In their modified framework of collaboration, Diaz-Kope, Miller-Stevens and Morris (2014) also identify the importance of structural arrangements. This research extends the definition of interorganizational structures described in this typology to focus on the additional antecedents that influence institutional

structures and, in turn, effect the collaborative venture (Díez, Tena, Romero-Gomez, Díaz, & Aedo, 2014). Interestingly neither of these collaboration frameworks describe the importance of role clarity as a dimension that intersects interorganizational structures and trusting relationships. However, the collaboration framework offered by Myer and Kenter (2015) does identify trust as a critical component of collaboration.

Collaboration requires trust and it is important for those involved to be able to gain trust quickly or maintain existing trusting relationships during the recovery efforts. Although pre-existing trusting relationships are the gold standard in emergency management, they may not always be achievable in prolonged recovery efforts. When the recovery period stretches into months and years, designated personnel are often replaced by those with limited exposure to this domain and who therefore lack pre-established trusting relationships. In these circumstances, trust must be formed swiftly.

Role clarity is an important construct in the concept of ‘swift trust’. Swift trust has been defined as a practice that involves the collective perception and ability to relate matters that are capable of addressing topics pertaining to vulnerability, uncertainty, risk and expectations in temporary organizations (Meyerson, Weick, & Kramer, 1996). Building trust quickly can occur when those involved clarify their role in the collaborative relationship (Meyerson et al., 1996). An additional factor that can facilitate swift trust is for the person to explain the opportunity for future interaction during the collaborative venture (Meyerson et al., 1996). Encompassing elements of swift trust may be beneficial for personnel from the nonprofit and public sectors who have no preexisting relationships with other stakeholders when collaborating in disaster recovery. Consequently, role clarity is essential for collaboration and therefore important for those involved in disaster recovery who may not have had the opportunity to build trusting relationships in the preparedness or response phases of emergency management. Clarity of roles has to be stipulated within the administrative

arrangements of the interorganizational structures and crucially, shared with other stakeholders when building trusting relationships. The onus of providing role clarity is not only on the individual organizations but the personnel representing those organizations in the recovery efforts.

Theoretical contribution

Whetten (1989) proposed three essential ingredients that form the building blocks of theory development: the what; the how; and the why. Figure 2 provides a visual representation of the three essential ingredients that form the building blocks of theory development and the authors demonstrating how these were addressed in this article. The ‘what’ describes what this article sought to contribute to theory. This was the social phenomena of interorganizational collaboration in the nonprofit and public sectors in the context of emergency management in disaster recovery. In addition, what this article also sought to do was extend Thomson et al. (2007) multidimensional model of collaboration to the context of emergency management. Having identified the ‘what’, the next stage was to identify ‘how’ they were related. The second building block of ‘how’ describes how interorganizational collaboration occurred in this case study. This describes how interorganizational structures and trusting relationships are related via role clarity. The final building block of ‘why’ explains (Whetten, 1989) the link between interorganizational structures, trusting relationships and role clarity and importance of benefiting the community. In articulating ‘why’ it is important, the final building block explains the importance of role clarity in facilitating swift trusting relationships.

[Figure 2 here]

Industry significance

To address the growing concern that academic research has become less useful for solving practical problems (De Ven & Johnson, 2006), this article offers an aide mémoire for organizations in the nonprofit and public sectors that are required to collaborate in disaster recovery (see Table 4). This aide mémoire can serve as a cognitive aid that helps practitioners detect, interpret, store and retrieve information efficiently (Rosenthal & Downs, 1985). The aide mémoire has many similarities to a checklist in that it is a quick and simple tool aimed to buttress the skills of professionals (Gawande, 2011). However, unlike a checklist, the aide mémoire does not have to be used in sequence or in its entirety. This aide mémoire merely provides a summary of written prompts for the user to remember and is quite simply a memorandum of reference (Lewis et al. 1846).

[Table 4 here]

To provide context for the reader, the following vignette in Box 1 provides an example of how the aide memoire may be used. The vignette is in the context of a volunteer representing an Australian nonprofit organization.

[Insert Box 1 here]

Conclusion

Interorganizational collaboration in the nonprofit and public sectors in disaster recovery is complex. This article explored these complexities by addressing the research question, *what are the barriers and enablers of interorganizational collaboration between the nonprofit and public sectors in disaster recovery?* Using a single intensively examined case study of the disaster recovery efforts following catastrophic floods in Tasmania allowed the depth of quality data required for this research. Importantly, this article addressed the calls from public administration scholars to ensure the methodological rigor of qualitative research (Ashworth, Mcdermott, & Currie, 2018; Ospina, Esteve, & Lee, 2017).

This article extended the multidimensional model of collaboration by Thomson et al. (2007) into the domain of emergency management. The findings were consistent with existing research on this subject and provided two contributions to the current understanding of the complexities of interorganizational collaboration in the research setting. Firstly, three prominent characteristics were required for collaborating in disaster recovery: (1) interorganizational structures; (2) trusting relationships; and (3) role clarity. Secondly, role clarity was acknowledged as central to facilitating the other two characteristics and the prominence of role clarity in the concept of swift trust was presented as a potential mechanism to enhance collaboration in the recovery phase of emergency management.

While scholars in the field of emergency management have theorized for years on the importance of collaboration, they have often fallen short in providing tangible outputs that can be used by practitioners and easily embedded into operational doctrine. This article has contributed to theory while creating a relevant tool for industry. A limitation of this research was the choice to explore the phenomenon in-depth as opposed to casting the net far and wide. To address this potential limitation, the article sought to demonstrate sound qualitative public administration research that blended methodological rigor with the richness offered by the data to facilitate effective theorization (Ashworth et al., 2018). To provide more breadth

to this subject, scholars may wish to explore interorganizational collaboration in the nonprofit and public sectors across different jurisdictions. The deployment of organizations to international disasters may reveal that competing structures and interests combined with differing cultures may pose additional barriers to interorganizational collaboration in this context. Although no single case study can be generalizable, the authors believe that the aide mémoire provided in this paper can be used by anyone from organizations in the nonprofit and public sectors to sense check their collaborative practice.

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