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Emergency management communication: The paradox of the positive in public communication for preparedness

Kim A. Johnston^{a,*}, Maureen Taylor^b, Barbara Ryan^c

^a School of Advertising, Marketing and Public Relations, QUT Business School, Brisbane, Australia

^b School of Communication, University of Technology Sydney, Australia

^c School of Humanities and Communication, University of Southern Queensland, Toowoomba, Australia

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ABSTRACT

Government emergency management agencies use public communication to inform and educate around risks such as floods, fires, storms, and earthquakes with the aim to help communities understand how to prepare for these emergency events. This study of government communication relating to emergency management preparedness examines an Australian context to understand the types of messages preparing community members for natural hazards. Findings suggest that agencies employ a two-track approach combining warranting and engagement messages. Yet a deeper look at the messages suggests a “paradox of the positive” that overemphasizes the capacity of local agencies to respond to crises and underemphasizes citizen shared responsibility. Implications for the paradox of the positive in other national contexts and public relations theory building are also discussed.

1. Introduction

Communication activities for preparedness for emergency events are under the remit of government communication specialists and are commonly part of a public relations function for emergency, crisis and risk situations (Reynolds & Seeger, 2005; Seeger, Sellnow, & Ulmer, 2001). Preparedness is conceptualized as both knowledge and behaviors that aim to reduce risk of injury and damage and build capacity to cope with the disruptions caused by the event (Paton, 2003). Preparedness describes “the knowledge and capacities developed by governments, response and recovery organisations, communities, and individuals to effectively anticipate, respond to and recover from the impacts of likely, imminent or current disasters” (Australian Institute of Disaster Resilience, 2018). Community preparedness ultimately is supported by effective emergency communication that helps citizens to build capacity and resilience to be prepared and provides an accurate reflection of the risks associated with hazards.

There are multiple actors in emergency communication, including various levels of government, emergency services, non-profit and community groups. All actors use communication to accomplish rhetorical as well as safety goals. For example, emergency preparedness agencies and local governments may disseminate messages that bolster their capacities.

In some ways, government communication can be considered a form of argumentation that positions leaders and agencies as experts. Argumentation is a rhetorical act. Toulmin (1969), (2003) articulated a style of argumentation around claims, grounds, warrants, qualifiers, rebuttals, and backing. Arguments have three parts: the claim, the grounds, and the warrant. The claim is an asser-

* Corresponding author.

E-mail addresses: Kim.johnston@qut.edu.au (K.A. Johnston); Maureen.taylor-1@uts.edu.au (M. Taylor); Barbara.ryan@usq.edu.au (B. Ryan)

tion that the speaker or organization would like to prove to audiences. The grounds of an argument provide the facts and evidence that support the claim. The warrant, which can be either implied or explicit, links the grounds to the claim. Warrants, as a system of reasoning within a rhetorical tradition, is useful in public relations (see Bostdorff & Vibbert, 1994; Crable & Vibbert, 1983; Heath, 1992; Ihlen, 2011). Heath (1992) argues warrants allow “critics to estimate whether sufficient facts exist, in light of the warrant, to justify the conclusion” and can support other arguments and the basis of decisions (Heath, 1992, p. 49). Government communication for preparedness can be seen as ‘a warrant’ that ties together the claim that they are working to prepare the public for emergencies - with the actual evidence - usually money spent on preparedness. The concluding warrant is that government agencies are protecting the public. There are many tactics used in this argumentation: press releases, new equipment purchases, training exercises and research reports. All tactics provide the warrants showing that government is prepared for emergencies and will protect the community.

Yet, it is not only government’s responsibility to ensure that communities are safe. Research suggests that community preparedness plays one of the most significant roles in reducing human and property losses during an emergency (Basolo et al., 2009; Donahue, Eckel, & Wilson, 2014). A fundamental tenet for understanding risk is an acknowledgement by individual citizens that they “share responsibility for their own protection, by taking protective actions and avoiding the harms that may befall them” (Donahue et al., 2014, p. 90). The role of public relations in communicating about emergency context, responsibility, nature, and action (see Coombs, 1998) is central to how a community anticipates, understands, prepares, and responds, to a natural hazard (Bradley, McFarland, & Clarke, 2014; Lindell et al., 2015; Liu, Fraustino, & Jin, 2015; Ryan, 2013; Sommerfeldt, 2015). While the type of information communicated is aligned to prevention, preparation, response, and recovery phases (Australian Institute for Disaster Resilience, 2019), this study is focused on the preparedness phase of natural hazard communication. In most cases, preparedness communication is informational, characterized as one-way, with limited feedback from the community.

In natural hazard settings, communication approaches are typically founded on a one-way informational model generated by government or expert sources (Hughes & Palen, 2012) with the potential for more engagement-oriented activities (see Johnston, 2018). Indeed, different phases of communication approaches have been found to align with difference stages of phases of disaster emergency management (EM), including prevention, preparedness, response, and recovery (Ryan, 2017). For example, the type of information exchange, such as one-way communication or more engagement-based communication, emerges as important at different times of EM, such as in the response phase, where Australian doctrine supports a command and control approach (Australasian Fire & Emergency Service Authorities Council, 2017). However, in the preparedness phase, an engagement-based community-led approach has been found to be more effective (Frandsen, Paton, & Sakariassen, 2011). A well-rounded EM communication strategy will include both informational and engagement approaches depending on the timing, situation, and urgency.

This study focuses on the preparedness phase of EM and examines public communication approaches through informational and engagement orientations. The first part of the paper explores the role of preparedness and risk perception. The research context and research questions are then presented. Following this, the methods used to investigate the research questions are outlined. Results of data collected from Australian government media releases generated on behalf of the minister responsible for emergency preparedness, and in-depth interviews from agency practitioners, are analyzed to answer each research question. The paper concludes with a discussion relating to the implications of government communication for community preparedness for contexts across the globe, contributions to public relations theory and suggestions for future research in government EM communication.

1.1. Communicating for natural hazard preparedness

The public sector, like its corporate counterpart, has come to consider communication functions as critical components of day-to-day business. Public relations plays a key role in both reputation management of agencies, and emergency and disaster preparedness and response (Coombs, 1998, 2002; Liu, Fowler, Roberts, & Herovic, 2018). In government agencies such as crisis response and EM agencies, public relations has the responsibility for sharing information that allows for more transparent governance with outcomes including increased trust, support and overall positive regard (Fairbanks, Plowman, & Rawlins, 2007). Public relations in this context includes public information and engagement around EM and natural hazard risk and action and public information campaigns. Public information tactics contain warrants, in announcements of new equipment, hiring new personnel, enhanced services, or improved resources, aims to provide information about the government’s initiatives to help keep the community safe and to demonstrate that taxpayers’ dollars are being allocated wisely. These announcements are typically made by the government, or more specifically the elected government official responsible for the EM portfolio. Media coverage of these initiatives amplifies the reach and power of the risk information and informs community preparedness.

In EM, safety and security are paramount and agencies exist to serve the public. Agencies constantly train personnel, buy new equipment, share lessons learned and take very public steps to reassure the community that they are ready in the case of emergencies. However, resource constraints, the unpredictable natural environment, and the diverse nature of natural hazards mean that agencies cannot guarantee that they will be able to help *all of their community* in a natural hazard event. Members of the public also need to do *their share* to prepare for a hazard.

People generally do not prepare until a hazard approaches, even if they recognise their level of risk of directly experiencing that hazard (Eriksen & Gill, 2010; McLennan, Paton, & Wright, 2015; Paton, Kerstholt, & Skinner, 2017; Paton, Smith, & Johnston, 2005). Risk perception is the process of collecting, selecting and interpreting signals about uncertain impacts of events, activities or technologies (Wachinger, Renn, Begg, & Kuhlicke, 2013). In natural hazard communication, these signals relate to the likelihood and severity of impact of an incident such as a storm, flood or bushfire. Public judgments of risk are often based on the potential or actual consequences, because these are easy to imagine and understand, but can still be mediated by everyday life and the back-

ground of the individual (Bushnell, Balcombe, & Cottrell, 2007). In bushfires, low risk perception is correlated with low bushfire safety information seeking and activity, and few preparation activities (Every et al., 2015). Risk perception also affects intentions, even though these intentions can be in turn affected by the reality of the hazard faced (McLennan et al., 2015).

Community engagement (CE) is central to facilitating community members to take responsibility for their preparedness and safety in natural hazards and disasters (Paton & Johnston, 2001). Herein lies the problem that we seek to address in this paper. Government agencies use public relations to highlight both human and equipment preparedness. Public communication shows the capacity of agencies to serve the public but also provides information to publics to tell them how to enact their own safety measures. A key proposition guiding this study therefore emerges out of the tensions between government and agency objectives – on the one hand, government communication creates the warrants that publicize the development of agency or department capabilities via traditional public communication channels, thereby cementing their reputations as community protectors and capable responders. On the other hand, agencies also deliver messages that communicate shared responsibility with the goal to remind the community that they must take personal steps to prepare as the agency may not be able to help during, or for some time after, a hazard event. These are two very different sets of messages around preparedness: publicity of agency preparedness and communication of shared responsibility.

1.2. Communicating for preparedness and risk perception

In an ideal world, people would have enough information at the right time to make good decisions in a disaster or crisis. Information is central to preparedness (Allen & Subervi, 2016; Donahue et al., 2014) and it is local emergency agencies that have to communicate and inform in ways that help community members to understand their risk, and motivate them to suitably prepare (Elsworth, Gilbert, Stevens, Rowe, & Robinson, 2010; Paton & McClure, 2013; Prior & Paton, 2008).

Risk is defined as “the tensions between certainty and uncertainty, degrees of probability, knowable patterns, achievable rewards, and preventable harms” (Palenchar, Heath, Levenshus, & Lemon, 2017, p. 712). Communicating risk encompasses information to address these tensions, or as Covelto (1992) describes, as a “process of exchanging information among interested parties about the nature, magnitude, significance, or control of a risk” (p. 359). Communicating appropriate risk and preparedness information to community members will only be effective if they understand the nature and impact of the risk and take action to prepare (Basolo et al., 2009).

Research in a preparedness context has established that people’s underlying risk perceptions influence their information seeking for preparedness behaviors (Donahue et al., 2014; Paton, Kelly, Burgelt, & Doherty, 2006). McLennan et al. (2015) and Prior (2010) also suggest that while people may be aware of natural hazard risk, preparation for that risk is low on the list of day to day priorities. In other words, preparedness activity does not rate high on the list of priorities when compared to other typical daily tasks.

The personal impetus to prepare is made more difficult because of the nature of media messages about risk. In a daily news cycle, positive stories about an agency’s capability generated out of a public relations effort may reinforce the view that the agency is ready to help and thus potentially allow such individuals and households to justify their own lack of prioritization of preparedness. Disaster researchers have shown the negative effect of an external locus of control within individuals on hazard mitigation and preparation (Mishra, Suar, & Paton, 2009; Spittal, McClure, Siegert, & Walkey, 2008). Additionally, people with optimism bias (i.e. ‘it won’t happen to me’) are less likely to pay attention to information or react to warnings (Johnston, Bebbington Chin-Diew Lai, Houghton, & Paton, 1999). Message warrants that “boast” about an agency’s superior response and rescue capability, or control and command, could combine with these two characteristics to destabilize agency-based CE efforts to find triggers to motivate and orientate households to actively prepare. This struggle to balance perceptions of shared responsibility (versus ‘a hero will rescue me’) depends on salient and consistent messaging across all sources of information (McLennan & Handmer, 2014).

Palenchar et al. (2017) argue that risk communication is presented through multiple lenses involving “governance, infrastructures, and confluences of interests” (p. 711). While government agencies with knowledge of a potential natural hazard have a core responsibility to share information and expertise, often times, this information is perceived as lacking in usefulness (Rød, Botan, & Holen, 2011). Further, some research has identified that some types of communication creates a “lulling effect” (Graham & Wiener, 1995, p. 14) in preparedness phases, meaning that people are lulled into a false sense of security and underestimation of risk from communications received. This lulling can impact individual self-efficacy – or their perceived ability to succeed in a specific action to prepare. It can transfer their locus of control to an external actor (i.e.: government) and reduce their motivation to undertake preparation activity, which has been seen as reduced preparedness activity in experienced communities for flood and heatwave (Mishra et al., 2009) and tornado (Legates & Biddle, 1999). Locus of control also has an effect on perception of risk (Trumbo et al., 2016). An internal locus of control, which emerges as self-efficacy, supports active preparation (Sattler, Kaiser, & Hittner, 2000). Adams, Karlin, Eisenman, Blakley, and Glik (2017) found that learning with or from other people, for example those in a community, can reinforce norms and attitudes surrounding preparedness behaviors. Basolo et al. (2009) further argue that although community members may be aware of a risk, community members “may believe that government planning and preparation are sufficient to handle a hazard event and therefore they may feel less urgency to adopt household preparedness measures” (p. 342). People with lower self-efficacy and an external locus of control “...should be targeted for special attention during the implementation of the risk communication program” (Lindell & Perry, 2004, p. 193). However, it is these people that could be susceptible to the messages of expanded capability by governments, with such messages entrenching their propensity toward minimal preparation.

Therefore, while research has established a link between understanding of risk and trust in government management of that risk (Gerber & Neeley, 2005), individual preparedness is associated with perceived government competency to manage a disaster (Basolo et al., 2009). Messages and how risk in disasters is communicated and understood has also been established as fundamental

to disaster preparedness, and serves to clarify risk and encourage preparedness (Seeger, 2008), how a government – and its public communication function - communicates about its competencies and capabilities therefore has direct relevance to preparedness activities and is the focus of this research. This discussion provides foundation for the first research question – that is RQ1: What are the preparedness messages communicated by government media releases during non-emergency periods?

2. Preparedness communication: informational and engagement approaches

Communicating for preparedness requires a range of public relations and CE activities to trigger preparedness behavior (see for example, Liu & Jiao, 2018). On the other hand, emergency agency corporate communication reinforces the reputation of the government in allocating appropriate funding. For this study, the government approach is operationalized as warranting and is situated within an informational paradigm because government agencies have traditionally used one-way communication approaches, such as media relations, publicity, events such as public meetings, and persuasion tactics, to prepare citizens for emergencies (Elsworth, Gilbert, Rhodes, & Goodman, 2009).

Paton (2006); Paton (2008a), (2008b) and others (Paton, Bajek, Okada, & McIvor, 2010) have highlighted the influence of community-led and socially bound initiatives on effective preparedness activities, often achieved through CE. The Australian Institute for Disaster Resilience (AIDR) defines CE as “the process of stakeholders working together to build resilience through collaborative action, shared capacity building and the development of strong relationships built on mutual trust and respect” (Australian Institute for Disaster Resilience, 2019, p. 2). Agencies responsible for CE programs are therefore challenged to create a process that creates (or co-creates) meaning through listening (Macnamara, 2016), communication, and action, and for the consequences of those actions to hold value for both the individual and also members in a community (see Johnston, 2018). An engagement approach in emergency communication extends beyond an informational approach and situates the public at the core of agency activities. Johnston and Taylor (2018) conceptualize engagement as an “iterative, dynamic process, where participation, experience, and shared action emerge as central components of engagement” (p. 3) that fosters meaning and value for a community. An engagement approach in emergency communication highlights the interactive and dialogic nature of activities where by meaning is co-created through education, shared action, connectedness, and experience.

Elsworth et al. (2010) define community participation in natural hazard safety as active participation in design and implementation, programs that involve entail active involvement of the community, and individuals actively planning and preparing for their own and their neighbors’ safety (p. 9). Attributes of connection (connectedness), interaction, participation, and involvement are therefore central to an engagement approach, with outcomes realized collectively for the community (Johnston, 2010, 2018). Much of this requires face to face involvement (Elsworth et al., 2010). Agency messaging in an engagement approach therefore is public centered and designed to respond to and meet community members’ preparedness needs. For this study, an engagement approach was operationalized as tailored public centered interactions, and messaging that was context based, situational and instructional, and equips the public to recognize the sentiment of self-reliance and action for preparedness. Table 1 summarizes how an informational approach and an engagement approach were operationalized in this study:

In summary, the preceding discussion addressed the effects of positive messaging, warrants on preparedness, and the alignment of such messaging with an organisation’s CE messaging. Based on this, RQ2 asks: How do emergency management community engagement practitioners understand and communicate preparedness?

Successful preparedness communication therefore must align at the nexus of both informational and engagement approaches (Johnston, Ryan, & Taylor, 2019). This means that in an EM setting, the obstacle of personalisation of risk must be overcome before any of these levels of engagement can be successful (Daniels, 2017). As Heath (2006) argues, “society collectively manages risks, ranging from the selection of products and services to broad contests narrowly instantiated over fairness, safety, environmental quality, and equality. Choice and, at its best, enlightened choice arise from the need to know facts, weigh interpretations and evaluation, and solve problems” (p. 99). This notion of enlightened choice brings into focus a common message and guiding theme through many agency CE programs, the concept of *shared responsibility*.

Historically, communities have been characterized as passive receivers of government direction and help (McLennan & Handmer, 2014). The concept of ‘shared responsibility’ emerged from the Council of Australian Governments following a number public inquiries into large emergencies and disasters (including Black Saturday¹) that overwhelmed response agencies in the early 2000s (McLennan & Handmer, 2014). Shared responsibility refers to the participation of individuals, households, communities, business and all sectors of the community, in the prevention of, preparation for, response to and recovery from natural hazards, and guides the key message strategy for preparedness communication across agencies (Attorney General’s Department, 2013).

Shared responsibility means that the employees of agencies and members of their communities are partners in disaster preparedness. While it is not an equal or balanced relationship (Attorney General’s Department, 2013), it does take advantage of the networks of government at all levels involved in building community resilience. Agency staff responsible for CE often live in the same communities that they serve and face the same threats as their neighbors. These engagement practitioners are also tasked with building, maintaining, and improving the relationships with local community members with the aim to support, facilitate

¹ Until the most recent 2019–2020 bushfires, the 2009 Black Saturday bushfires in Victoria were the most devastating in Australian history; 173 people tragically lost their lives, 414 were injured, more than a million wild and domesticated animals were lost and 450,000 hectares of land were burned. <https://www.nma.gov.au/defining-moments/resources/black-saturday-bushfires>.

Table 1
Operationalization of Informational and Engagement approaches in Emergency Management.

Criterion	Informational approach	Engagement approach
Strategy	Management perspective Organizational privilege <ul style="list-style-type: none"> • Command and control • Depersonalization of risk 	Shared responsibility <ul style="list-style-type: none"> • Participation, experience, shared action community centered • Personalization of risk
Messaging	Persuasion, Argument, Warrant	<ul style="list-style-type: none"> • Capacity building • Social capital building • Self-assessment
Relationships	Reputation based	Socially oriented – awareness of self and others
Communication	One way	Cocreational, dialogic
Channels/ Techniques	Earned media, social media	Interpersonal events and activities (experiences) shared action, mentoring

and champion community preparedness, and at the same time, maintain the reputation of their agency or organization in the eyes of community stakeholders. This section has raised the final research question – that asks: RQ3: How do EM CE practitioners perceive the alignment of public communication messaging with preparedness goals? The next section will discuss the method used to investigate these questions.

3. Method

The Australian context was selected to study if and how informational and engagement messages are used to prepare community members for natural hazards. Australia has many hazards including floods, cyclones, typhoons, wild fires and possible tsunamis, so we believe that Australian context can be generalized to other nations. The way CE for EM is applied across Australia differs, but at the heart of all government action is the goal of building personal, family and community resilience (Australian Institute for Disaster Resilience, 2013).

A two-stage research design using first, content analysis of government media releases and second, depth interviews with CE practitioners working in EM agencies, was used to answer the research questions.

The first stage examined the warrants of the hazard preparedness messages created by the government ministerial or departmental public relations practitioners in government agencies responsible for emergency agencies. Government statements were selected as the most appropriate data source to investigate this phenomenon because ministers responsible for emergency agencies were found to be the core *public* communication mechanism in non-emergency periods – including prevention and preparation, and recovery. Any releases addressing response during an emergency event were not included in the sample. A content analysis examined media releases about hazard preparedness and EM in the three Eastern states of Australia (Queensland, New South Wales, and Victoria). The research team identified a total of 180 media releases issued by government ministers responsible for emergency agencies from 9 January 2017 to 15 October 2018. The ministerial media statements were analyzed by one researcher. Data quality was checked by a second researcher. Messages were operationalized as warrants when reporting of funding amounts, equipment purchases, infrastructure improvements and staff training. Engagement messaging was operationalized as empowering publics, for example through providing instructions or building resilience in community members through providing context specific messages. We wanted to know the preparedness topics government agencies were communicating about (RQ1) and what were the key topics?

The first round of coding identified a) amount of money pledged, b) equipment announced or pledged, c) capacity building such as emergency personnel training announced or completed, d) infrastructure announced or opened, and e) resilience or preparedness content (empowering or educating publics). Coding quality was maintained in two stages. First, a coding protocol was developed and checked against a sample of five news releases. Coding categories were checked and cross coded by a second coder. Further coding was undertaken and checked, resulting in a coding reliability of .91. To go beyond just counting the prevalence of the five categories of preparedness messages, word frequency analysis of all ministerial statements, conducted through NVivo 11, was also performed to look for themes and key terms.

The second stage, in-depth interviews, adopted a constructivist approach to understand the reality of the participants (Ritchie & Lewis, 2003). In-depth interviews with 30 CE practitioners working in EM agencies representing state, local and community agencies across six states and territories in Australia. A CE practitioner was defined by their title or their job/role description. The participant sample was purposive and comprised CE practitioners and operational staff (N = 30) recruited from emergency agencies with additional snowball sampling used to recruit participants who were active in CE for preparedness and resilience. Participants represented all Australian non-metropolitan fire agencies and all but two State Emergency Services. It included three local councils, a nation-wide aid agency and a local community center. Criteria for sampling of participants applied criteria at three levels: Disaster type, type of agency, and location. An interview guide was developed from the empirical literature, and focused on participant approaches to developing and delivering communication programs for preparedness. One hour in-depth interviews were conducted over the phone by two researchers. Data were professionally transcribed and NVivo 11 was used to manage the data process. Analysis followed Marshall and Rossman (2016), where one researcher independently reduced the data and generated theory-based and NVivo codes in three rounds and the second researcher checked for quality. To maintain coding quality, a coding protocol was developed and followed. After the first round of coding, unique codes were discussed and coding node duplication resolved. The cod-

ing guide was then updated to maintain coding consistency. This process was repeated at the end of the second round of coding with agreement across coding categories.

The two methods allowed for an in-depth understanding of the messages created and disseminated by government agencies and the practitioner perceptions of the alignment of the warrants with preparedness.

4. Results

4.1. Government preparedness messages

RQ1 asked what are the preparedness messages communicated by government media releases that are not related to a current emergency? Results show that in the 180 media releases in this 20-month period, messages about emergency funding, equipment, agency capacity building and investment in infrastructure appeared most frequently in government media statements.

Ministerial statements and media releases announced spending on EM totaling more than AUD \$6 billion (\$4 billion USD, 3.5 billion Euros). Queensland and Victoria news releases also publicized new equipment (relating to emergency response) in at least a third of all statements (QLD 43 % and VIC 33 %) and new or improvements to infrastructure (QLD 25 % and VIC 33 %), while NSW featured equipment in 12 %, and new infrastructure in 7% of statements. Capacity building activities, such as staff training and skill building, were featured in approximately one third of all statements across the sample (31.1 %).

Engagement oriented news releases and announcements appeared much less frequently. Table 2 summarizes these results:

Next, to further answer RQ1, an analysis of the dominant themes of the messages was conducted. A cluster analysis of all sources at the word level was used to generate a word cloud to visualize the top 20 dominant themes expressed in the data. Fig. 1 shows the analysis from the ministerial media releases. Conjunctions and similar words were not included in the analysis and words under three letters were not included.

The result from the ministerial statement data suggest, as expected, the term emergency appeared most frequently in the cloud. The term emergency was associated with fire or disaster, as the ministerial statements most frequently addressed these events. The focus on the term “services”, followed by references to “government”, “minister” and “community” (or communities) were the next most frequently used. Concepts such as “support”, “assistance”, and “grants” appeared roughly the same number of times. What was missing was mentioned of under-represented themes, such as the lack of focus on “preparedness”. To answer RQ4, the findings suggest that the ministerial statements used the terms “government”, “minister”, and “state emergency services” more frequently than any preparedness words. What these data show is a focus on the agency, the leaders, and declarations of their actions to support, assist, and grant.

Table 2
Analysis of key government statements relating to preparedness.

State	N	%	Total \$AUD	Equipment % Mentions	Capacity Build % Mentions	Infrastructure % Mentions	Empowerment % Mentions
Queensland	72	40.0	\$ 2,804,327,800	43	38	25	18
Victoria	39	21.7	\$ 269,550,000	33	33	33	13
New South Wales	69	37.3	\$ 2,964,442,041	12	23	7	16
Total	180	100	\$ 6,048,319,841	28.9	31.1	20.0	16.1



Fig. 1. Analysis of the most frequent key words from ministerial statements.

4.2. Communicating preparedness

RQ2 asked how do EM CE practitioners understand and communicate preparedness? To answer this question, data from 30 participant in-depth interviews were analysed. First, preparedness was identified as multi-dimensional articulated at a program or strategic level.

When exploring preparedness, participants reported three key themes or dimensions of preparedness as program goals. These were described as shared responsibility, identifying risk (appropriate to hazard), and establishing connectedness or relationships. None of these terms appeared prominently in the media releases text presented in Fig. 1.

The first theme - shared responsibility - was expressed by most participants who acknowledged the importance that individual community members recognize they are, in most part, responsible for hazard preparedness. For some participants, this reflected a type of community resilience, while for others, joint responsibility was a basic foundation to their preparedness goals, as illustrated by these excerpts:

...to build community resilience and shared responsibility with the set number of communities that we are working with (#217).

Our line is very much that it is a joint responsibility. We talk about what we can do operationally and then we talk about what the community can do to assist their own preparedness.. . And then we go to the community and say, "So, what you need to do is, you need to know how to get information." That is the absolute basic level of preparedness. ...We very much talk about "shared responsibility". (#219)

Shared responsibility was also seen as a shift from historical approaches, as there was an awareness that increasing populations and limited resources meant that response agencies needed to effectively motivate people into recognizing their capabilities and what they needed to do to prepare. A key indicator for this led to theme two – which was about accurately or appropriately identifying risk. Interviewees noted that the goals of preparedness were about getting the right information about risk, and for people to understand how to respond (in different hazards). These sentiments are best illustrated by the following excerpts:

... that people would understand what the risk is in their local community; and would understand the risk profile the so they understand that, yes, there's a flood risk; they would also understand that the risk of that flood occurring might be X number of years. ... you would have is a well-informed community that understands the risk; but that has also identified the actions that they need to take to prepare for the risk. (#114)

...they are thinking about the risk, they understand the risk and they have got a plan in place to address the risk if it happens (#221)

Establishing connectedness emerged as the third dimension of preparedness, often positioned as a way to leverage community capabilities, social capital and established community networks. Communities that featured strong social cohesion– that is, there was a very visible community network that could be tapped to facilitate and lead a community preparedness program, was essential. Most participants recognized that no two communities were the same and that each community needed to build on the strengths and capabilities that exist within that setting. This community-centered relational foundation was also seen to be fundamental to a preparedness program:

We are connected and we have a common value to look after our community. We want to look after each other. There are people who have got that interest and commitment. .; and somehow they will draw other people into them. (#218)

We do look at the level of connectedness within a community and we do see our role as facilitating those connections. (#219)

Next, a cluster analysis of participant interviews, at the word level, was used to generate a word cloud (see Fig. 2) to visualize the top 20 dominant themes.



Fig. 2. Analysis of the most frequent key words from key informant interviews.

Thematic analysis of the key informant interviews found that community was mentioned 2092 times 2.2 %. The terms people 1689 – 1.7 %, and [what they] think 1314 – 1.38 % and know 1189 – 1.2 %) were also dominant words, suggesting a community focused practice for preparedness. The answer to RQ2 suggests that the themes of “engagement” (616) and “preparedness” (485) also dominated practitioner’s narratives reinforcing the role of engagement in community preparedness activities. The key informants also referenced the term “work” and “need” frequently (593/591) suggesting that approaches to preparedness required effort – or work – and it needed to be tailored to a community’s needs.

4.3. Perceptions of alignment

The final research question (RQ3) investigated CE practitioner perceptions of alignment of public communication messaging and media statements in regard to preparedness goals. The findings suggest communication tensions in preparedness communication. Tensions were identified by participants relating to current messaging and inconsistencies where they perceived communication not to have the outcome or effect contributing to preparedness.

4.4. The tensions in communicating for preparedness

The first tension reflected the concept of *shared responsibility* (community and agency) versus it is the government’s (or agency’s) role (or... rely on me vs rely on others). Here participants reflected on the struggle that agencies have with public expectations that “someone else” will help them in the time of need. This was particularly important in preparedness activities, for example, relating to the sense of personal responsibility:

...a change in thinking/culture; in that we want to encourage people to share responsibility and own their risk, rather than them thinking that the government will save them. (#217)

The big one for us is trying to get people to be a little bit more self-reliant. Community expectation from government agencies and non-government organizations is quite high and the ability to deliver those is declining rapidly. (#228)

While the source of misperception was not directly related to one cause, many participants connected this to the repeated messages extolling new equipment and a lack of understanding operationally how resources are allocated in an emergency:

...there are some misperceptions in the community...some communities think, "Oh, yeah, we will just get a fire truck and it will be here, and we will be safe; or a helicopter is going to come in." (#217)

...people think, "Oh, yeah, they have opened the doors to the shopping centre; I will just go and stay there." It takes away from their personal responsibility...[there’s an]increasing attitude amongst the community that we are having trouble with - that "someone will come and save me...that’s their job..." (#221)

The shared responsibility tension concerned many practitioners, and when exploring possible reasons behind a general apathy or reluctance to prepare, a second tension emerged that described people not really understanding the risk reality of some hazards. For some this meant that they were concerned that the public communication about emergency service agencies may be overstating capabilities. Telling the ‘hard truth’ was viewed as a core requisite for preparedness and for how community members understood the risk of a particular hazard, and ultimately, what they personally needed to do to prepare. Without this understanding, it was felt that community members would hold unrealistic expectations of the emergency service agencies, and as a consequence, not prepare and just wait to be told what to do in the event of an emergency. This theme was particularly expressed through the identification of barriers to preparedness, where assumptions, lack of capability and lack of time hindered preparation. This reality emerged as a tension when messages sent out by government, focused on funding, equipment, agency capacity and infrastructure:

Bright, shiny toys are great, but it can reinforce on occasion that the government will come in. What it does create within the community is an unrealistic expectation. (#114)

A time will come when we are not going to be able to help; and that concerns me...the mixed messages that go out with preparedness versus PR, ... "we have got fire trucks and we are doing this/that"; I think that sort of PR messaging actually conflicts and dampens the preparedness message. (#222)

Participants were acutely aware that nuances of messaging can have considerable effect on the success of the information or program incorporating that message. In their view, messaging on EM spending, at best, neutralized shared responsibility messaging, and at worst, promoted abrogated responsibility. Most talked about their team’s aim of a deep relational communication and community-led programs that would embed a preparedness culture into communities within their state.

This situation led to the final tension found in the data that reflected an inconsistency in philosophical approaches to disaster management. While it is outside of the scope of this paper to revisit historical approaches, the notion of controlling an emergency situation was attributed to traditional EM response settings, where an emergency is managed by a *command and control* approach. However for preparedness, a tension was expressed by a number of participants recognizing that a *community led* approach to preparedness was what was needed, and was more effective:

The emergency management community as well-intentioned as it is, comes from an insular mindset of ‘heroes’...‘If it is not a control and command sort of firefighter approach, it’s very much a bureaucratic State Government approach,’... ‘This is what we need you to do ... this is how we think you should do it; here’s a fold-out pamphlet...off you go.’ (#224)

'empowerment' is about the community owning their bushfire risk ... rather than us coming in and doing things for them, it is about them facilitating it and them owning/driving it...It's about coming in and asking them for their knowledge/advice and respecting the social capital within their community/groups. (#217)

In summary to answer RQ3, while practitioners perceived public messaging aligned with preparedness goals, that is, for communities to be empowered through having the right information about the risk, and to understand, and take appropriate actions to meet the requirements of the risk, the findings also suggest that universal messages disseminated by government is having a paradox effect. This paradox has implications for how agencies communicate with citizens. The next section discusses the implications of these findings for preparedness communication and public relations theory.

5. Discussion

This study aimed to understand how government EM agencies use public communication, and in the process discovered tensions that could present obstacles to motivating segments of the community to actively prepare for natural hazards. Instead of organizationally-aligned messaging, warrants were used that could counteract the effect of organizational efforts to encourage the community to share the responsibility of preparing for disaster. More specifically, the study found that government EM communication, through using warrants in argumentation, can create the impression that the government is well prepared to help citizens in an emergency. But, the reality is much different, as surviving hazards often occurs because of the resilience of those who have prepared, and within communities that have understood and accepted that preparedness begins from a 'shared responsibility' approach. The next question, and one for future research, arises on why this occurs. Is it because the public relations and CE functions of emergency organizations are separated within organizational structures? It should be possible for the warranting messages to be supplemented with a consistent shared responsibility theme - this alignment of messaging is recommended and practiced in the private sector between marketing, advertising, branding and public relations (Volk & Zerfass, 2018). Or is it a function of democracy whereby a minister or political party needs to be seen to be looking after constituents at any cost, in readiness for the next election?

Another key finding was that the concept of shared responsibility, a key component of Australian doctrine, was not well understood at a political level, and this misunderstanding seemed to be reflected in many areas of the operational levels of emergency organizations. This manifests itself via the command and control approach to response, which, in the preparedness phase was characterized by study participants as a reluctance to 'let go' when communities want to take charge and realize a community-led approach. The result of this will be a failure to reach CE goals by those organizations that have such goals in their strategic plans. A byproduct of this finding was the potential for CE and operational teams to be working at cross-purposes, presenting further obstacles to alignment of organizational messaging.

The findings from this study also have implications for public relations theory building. Most public relations scholars proceed from the assumption that public relations is a positive force in relationships among groups, publics and organizations. Both informational and engagement approaches have positive outcomes for all types of organizations, including government. However, Heath and Waymer (2009) and Waymer (2013) point to the phrase "the paradox of the positive" to critique public relations communication. Waymer and Heath (2016) argued that public relations discourse is an "imperfection" when influential and powerful people make "public, optimistic announcements of messages" (p. 7). Public communication messaging is supposed to make people feel like they are understood and being served by leaders (Heath & Waymer, 2009; Waymer, 2013). However, the emphasis on positive messages may create false or misleading meanings (Heath & Waymer, 2009).

Waymer (2009) reminds us that the stakes are even higher when it comes to government communication due to being both an instrument of the people, which presents a paradox for the needs of the organization against the needs of the people. The stakes are particularly high when it comes to community action to prepare because of the potential harm that comes from not taking appropriate action. This sentiment is succinctly noted by this interview participant:

... the more the councils and the disaster agencies do - we are doing it in good faith. We are doing it to empower people; to help them make decisions; and put planning into place to make themselves deal with that situation a whole lot better; But to some degree, we are taking that away...disempowering, because the more that we do, they are going, 'Oh, they have got that covered. We don't have to do anything. And they will tell me what to do.' (#221)

Announcements of 'good news' revealed an active effort by government leaders to advance or improve publics' quality of life in some way; however, as this study suggests, these seemingly favorable actions and initiatives may be actually damaging key publics they are supposed to serve (Waymer & Heath, 2016, p. 8). Communication as good news is also an instrument of public policy, as it reflects a political discourse and the role of public opinion (Donahue et al., 2014; Heath & Palenchar, 2009) as an indicator of public policy effectiveness (Gerber & Neeley, 2005) and public sentiment. Government communication therefore operates as a device to positively position government agencies, and by default political leaders, as being competent/ achieving good outcomes for the public good. This as an informational approach to public communication in that its goal is to generate good news and positively frame the government's role but may serve to disempower the communities that it serves.

RQ1 showed that public communication messages focused heavily on warrants relating to funding services (relating to emergency response) and improvements to infrastructure. Engagement oriented news releases and announcements such as those empowering the public or community were less frequent, meaning that community members had strong exposure to positive news about agency capability rather than consistent messaging about self-reliance, risk reality, and resilience. RQ2 found that the differ-

ences between public communication messages, and what CE practitioners conceptualized (see Figs. 1 and 2) embody the key differences between an informational approach and an engagement approach. The outcome means that the communication and engagement teams are working at cross-purposes, often against a political rather than a community imperative. While the over emphasis on positive news does result in a strong public sentiment and trust in EM agencies that the government has invested wisely in infrastructure and resources, it also means the goal of communicating shared responsibility and self-efficacy, is potentially diluted or lost.

RQ 3 findings point to a tension between the messaging used for highlighting investment in EM and the goal of shared responsibility messaging. Messaging within different levels of engagement will have an impact on preparedness, which in turn affects the balance of shared responsibility within each community. These findings also suggest that the message of *shared responsibility* is not clear in the public communication issued by Australian government communicators. Analysis of the news releases and the interviews suggests that communities are still being treated as passive receivers of government direction and help (McLennan & Handmer, 2014).

People need to have enough information at the right time because information is central to preparedness (Allen & Subervi, 2016; Donahue et al., 2014), to the development and maintenance of self efficacy and an increased internal locus of control (Jeuring & Becken, 2013). Local emergency agencies also need to have both informational and engagement messages to motivate communities and individuals to prepare themselves and their properties before the crisis occurs (Elsworth et al., 2010; Prior & Paton, 2008). Emergency management practitioners most closely involved in CE for preparation are, on the whole, sensitive to the impact of capability focus of media releases published by the elected representative in charge of that portfolio (see Aula, 2011). However, they have no means to incorporate this channel of communication into their overall engagement messaging strategies. This finding points to the importance of aligning ministerial / political and agency messaging for natural hazard preparedness. A key implication from this study points to the need for this alignment and a more nuanced understanding of the effect of government good news on communities' perceptions of agency capability and response. Future research should further investigate a community perspective of the alignment and consistency between government and agency messaging for preparedness, especially by considering the effect of agency warrant messaging on the preparedness behaviour of people with external locus of control and those that operate with an elevated optimism bias. Future research could also revisit command and control approaches to community preparedness to further understand the attributes of each approach to preparedness.

Second, the concept of shared responsibility does not seem to be embedded in emergency operational practice, despite the national CE policy framework being adopted by most CE teams. Informational messaging attempts to develop trust in government. But such focus on the positive outcomes of new equipment, capacity, and infrastructure may actually decrease interest in personal or community-led preparedness. Palenchar et al. (2017) warn against both the intended and unintended consequences of risk communication. This paper is not advocating for Australian agencies (or agencies in any other national context) to stop using an informational public relations approach to share the news about equipment, training and preparedness, as both informational and engagement public relations have important roles to play in creating preparedness. A key finding of this study, however, is that the current messaging is not supporting the overarching goal of shared responsibility towards community preparedness. The paradox of the positive has the potential to construct a very different reality for the community and this reality may mean that some people are not fully prepared for risks.

6. Conclusion

This study demonstrates that tensions in messaging are clear cause for concern in the ongoing mission to motivate communities and citizens to prepare for natural hazards. In addition, while teams are tasked with conducting true CE and participation, and supported in this by policy at federal level, in many agencies, this seemed to be hindered by historical legacies of the command and control way of operating. Command and control is recognised as foundational to EM – and highly appropriate during an emergency response. However command and control is not appropriate for building community capacity in the preparedness phased of EM. So while political messaging on EM capability-building gives the impression that agencies are getting ahead in their battle against natural hazards, and thereby increasing the confidence of the community in emergency agencies generally, climate change and population migration into hazardous environments mean there is no net gain. There will never be enough government resources to provide a complete disaster response without the community recognizing and accepting a shared role in responsibility to prepare, and having the capacity – in its many forms – to take action to prepare prior to a natural hazard occurring.

The practical implications of this research are that political messaging needs to be carefully planned to align with the operational concept of shared responsibility, and for the political narratives around community preparedness advocate for community partnerships as a necessary condition for preparedness to ensure optimum community safety during emergency events. It also shows that communities need to be brought on board in the effort to develop a shared responsibility culture through preparation.

At the theoretical level, this study reminds us that public relations is a complex communicative activity and our theories need to reflect both the positive and the not so positive outcomes of communication. Theoretical and conceptual frameworks such as crisis communication, OPR, dialogue, engagement and social capital often proceed from a paradox of the positive. This paper has problematized government preparedness communication as the first step toward making public relations theories more robust and useful to professionals. While a key limitation of this study is the lack of community perspective in the data, future research will 'close the loop' by listening to community perceptions of preparedness and locus of responsibility.

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