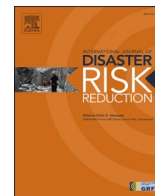


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# ‘One big team working together’ - Shifting narratives to encourage civic participation and collective action in disaster preparedness

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## ABSTRACT

Disaster risks cannot be reduced by individual efforts alone and necessitate community participation and collective action. However, communicating and encouraging collective action is difficult. Existing studies show that stories and narratives are useful to convey complex less-understood phenomena, like disasters, in a comprehensible and relatable manner. As such, this paper explores existing disaster narratives and aims to understand how they encourage civic participation and collective action for reducing disaster risks. The findings show that the framing of disasters in mass media narratives are unlikely to encourage collective action as they do not emphasize citizen's agency and efficacy in reducing disaster risks. However, in the narratives shared at the local level between emergency management agencies and community members, there is currently a shift towards emphasizing community agency, efficacy, and responsibilities in reducing disaster risks. Four dominant themes are identified in these narratives: reframing the concept of *heroes*, promoting connection and care, emphasizing collective efficacy and collective responsibility. While the narratives are beneficial, they also cause some tensions, such as, confusion arising from lingering response-centric narratives; frustration around the collective responsibility narratives; and resistance to the current narratives as they are perceived as attempts by emergency management agencies to transfer emergency management responsibilities to people. The implications of the findings and the future directions are presented.

## 1. Introduction

Growing evidence indicates that engaging with communities and involving them in risk reduction efforts is crucial for building their resilience [1–4]. Since community members are often the first responders during a crises and play a critical role in providing initial support before formal state intervention [5], it is important to prepare and empower them in pre-crisis times such that they can take swift action during an emergency [3]. Recognizing the importance of community involvement in disaster risk reduction (DRR), the Sendai Framework for Disaster Risk Reduction, an international agreement on DRR, urges civil society, volunteers, and community-based organizations to collaborate with public institutions to reduce disaster risks [6]. In New Zealand as well, the policy environment encourages community involvement - the 2002 Civil Defence Emergency Management Act emphasizes the role of communities in managing their risks [7] and the 2019 National Disaster Resilience Strategy under its third priority explicitly calls for participation and collective action by communities to build a resilient nation [8, p. 31].

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Communication is central in this process of engaging with communities and encouraging civic participation and collective actions [9–11]. Traditionally disaster and risk communication have followed a rational approach guided by cognitive and psychological studies [12–14]. The emphasis is on presenting scientific information about hazards and recommended actions clearly in a logical manner, using rhetorical argumentation, backed by data and statistics with the expectation that people will process this information, make decisions, and adopt actions following scientific rationality and reason [15,16]. However, research suggests information flowing passively from experts and authorities to the public are often complex and technical in nature and fails to clearly convey the concern and generate interest [17,18]. Understanding what the abstract technical hazard information and recommended measures imply in terms of actions that the community members can adopt in their specific context becomes difficult, especially for rare events that community members have not experienced [19]. Thus this approach is insufficient to prompt people's participation and collective action [16].

Given the limitations of the rational approaches, there is a growing interest in the relational and network-oriented perspective of disaster and risk communication [10,20]. The relational perspective views people as situated within social networks and communication as an exchange between peers within this network [21]. It argues that stories, anecdotes, and narratives shared in conversations in this network of peers become the vehicles through which community knowledge, perspectives and actions are shaped [22]. Studies in communication, marketing, health and psychology, demonstrates that narratives can be used to raise awareness of social, political, and environmental issues and garner support for or against them [17,23–27]; like, grievance-based narratives are powerful in initiating and maintaining civil wars [28], and victim and hero themes in narratives encourage protective actions during the outbreak of infectious disease [29]. For disaster and risk communication, narratives are suitable to deliver contextual personalized information in a language that is understandable, engaging, relatable and easy to act on [30,31]. Given that much of the current understanding of disasters, vulnerabilities and capacities is shaped by narratives of individual and collective experiences of extreme events of the past – they are an intuitive way of conveying complex unfamiliar processes [32,33]. Particularly, narratives are helpful to engage people in conversations, re-frame public imagination, influence how people think about disasters, highlight human agency and mobilize people to reflect on strategies and implement actions to reduce risks; thus suitable to promote civic participation [22,34,35].

While the potential of narratives is recognized, there is limited evidence on how narratives can be adopted in disaster and risk communication practice alongside the existing rational technical communication to promote civic participation and what are the challenges. To develop a clear understanding, there is a need to answer questions like - what are the existing narratives about disasters and risks prevalent at the community level? How do these narratives frame civic participation? How actors like emergency management agencies, community-based organizations and community members perceive and engage with these narratives? What is the impact of these narratives? Which narratives are problematic and how can they be improved? This study aims to answer the above questions.

The following section presents the extant literature discussing what narratives are, why they are influential, what disaster narratives currently exist, how they promote civic participation in the pre-disaster context and what gaps persist. Then the methodology of the study is presented followed by the findings, discussion, and conclusion.

## 2. Literature review

### 2.1. Narratives and civic participation

#### 2.1.1. What are narratives?

Narratives emerge from the everyday stories and conversations that media, community organizations and local people engage in and share [35]. The terms *narratives* and *story* are frequently used interchangeably [34] and refer to the portrayal of interconnected events and characters in a specific space and time structured in a cause-and-effect format [24]. The same event can be depicted in various ways across different narratives, where some elements of the event can be emphasized to different extents to align with the communicator(s)' perspective and desired representation of the event [36]. For this study, we consider narratives as a symbolic representation of events that contain a "character or characters" [37, p. 201] and are about the local community [35].

Narratives are communicated in various ways. It ranges from transmedia storytelling (using multiple media integrating vivid imagery with evocative descriptions) often adopted by government agencies or corporate organization to convey a message through a compelling story [38–40], to narratives shared through mass media about topics of interest that shape public knowledge, behaviours and opinion [41,42], to oral narratives of personal stories, actions, challenges, resources, and aspirations shared by community members through monologic stories or through conversational storytelling [34,43].

#### 2.1.2. Persuasive power of narratives

The narrative paradigm by Fisher [44] claims that humans are storytelling animals. In everyday community life, people do not rely on scientific-logical arguments which are common in science or policy - rather much of human argumentation, decision-making and life choices rely on stories shared among people. Embedded in these stories are people's reasons and values. Community members construct their realities through their interpretation of the different narratives - which stories people resonate with is influenced by lived experiences, personal values, and pre-existing socio-cultural narratives. By connecting individual experiences with shared social values, stories shape beliefs and attitudes.

The elaboration likelihood model (ELM) suggests that the initial step to influence behaviour through a message lies in capturing and sustaining an individual's attention, prompting them to engage with and process the information [45]. Narratives are relatable, and interesting and hence more likely to capture an audience's attention and enhance their intentions to engage with the information

and generate conversations [27]. Narratives can absorb individuals in the story, transporting them away from the realities of their daily lives and into a narrative realm where they can immerse themselves in the story's experiences (narrative transportation) [46]. This immersion in the narrative world fosters vibrant mental imagery, emotional reactions, and responses to the story directing people's attention to the narrative itself rather than the underlying messages and logical arguments [31,47,48]. By engaging people both cognitively and emotionally, narratives become more impactful than non-narrative messages (e.g. reports, statements) that feature persuasive arguments or logical-scientific proof which activates only cognitive reasoning.

Moreover, rhetorical strategies employing argumentation or logical-scientific statements are useful for persuasion in domains like science or policy. However, people talk amongst themselves in everyday life using narratives [24]. These narratives reflect the values, beliefs, and reasons to justify a call to action. Thus, narratives, and not logical-scientific statements, guide rhetorical argumentation in real life among people. This shapes individual and public opinion, decision making, and is influential in engaging us into actions that shape our future.

Structuring scientific information in the narrative format is more likely to lead to its adoption in everyday conversation, support its dissemination and generate social support [21]. As the persuasive intent of narratives are not apparent, narratives reduce our intentions to oppose and counterargue against the messages shared [49]. Thus, for "communication of science to nonexpert audiences, stories, anecdotes, and narratives become not only more appropriate but potentially more important" [24, p. 13614].

### 2.1.3. Narratives, and civic engagement

Central to community building and civic participation is communication [50–52]. Habermas' seminal work on the Theory of Communicative Action (TCA) posits that communication is not only for transfer of information, but also about reaching mutual understanding. By engaging in a conversation, the public present their viewpoints, express their interests, and engage in argumentation to resolve conflicts, reach a consensus through reason, and take collective action to resolve problems [53].

The communication infrastructure theory (CIT) advances this idea [35]. However, instead of focusing on rational discourse in communities following TCA, the CIT explores the role of narratives and storytelling in civic engagement. CIT argues that storytelling is integral to building communities. Storytelling happens through everyday conversations among community members where they share local stories, information, news, etc. The narratives shared during conversations in a neighbourhood storytelling network<sup>1</sup> allows community members to relate to their neighbourhood and generate a shared sense of reality by discussing their identities, aspirations, challenges and lived experiences. The framing and re-framing of the narratives shapes the community members' idea of what the community is, what the community values and what community features they should preserve and carry forward. Such story telling engenders a sense of solidarity and community, which is a key factor in motivating civic participation. Stronger connection to the neighbourhood storytelling network also enables community members to identify local resources to attain their individual or collective goals [51]. Thus, narratives shared through conversations have a strong role in catalysing civic participation and collective action.

## 2.2. Communication, civic participation and collective action for reducing disaster risks

### 2.2.1. Collective component in pre-disaster communication

In the pre-disaster stage, communication activities help in improving preparedness by providing information about risks and existing resources (e.g. hazards in the area, who are exposed), involving the community in discussions on risks and plans for response (e.g. developing a response plan), promoting preparedness and mitigation activities (e.g. preparing a grab bag, installing disaster mobile apps), and fostering community connections and relationships (e.g. identifying interconnections between community members, building trust) [54,55].

These communicative activities have both an individual and collective component. The individual component of communication highlights individual agency, responsibilities, and recommended protective actions for emergencies at an individual level. The collective component of communication helps in situating individuals in the broader community context, builds a shared understanding of risks, fosters community relationships and supports individuals to access resources available within the community to address hazard risks [52]. For example, in wildfire prone areas, property owners may communicate amongst themselves to form networks and collaboratively conduct prescribed burns, fuel treatments,<sup>2</sup> and plant fire resistant vegetation to effectively mitigate wildfire risks, which cannot be attained by individual efforts alone [56]. Prior to hazard events, community members may share warning and preparedness messages within their social networks to protect loved ones, thereby amplifying effects of official communications and sometimes influencing hard to reach groups [57]. Such communicative actions also helps in building deeper connections within the community, fostering a sense of belonging, and attachment and contributing to social capital all of which contribute to disaster resilience [1,10]. Thus, the collective component highlights the social situatedness of individuals, fosters a sense of community and encourages co-operative efforts for protecting all members of the community.

However, the "collective component" of pre-disaster communication is often "not apparent" [4, p. 16] and the focus remains limited to individual responsibilities and protective actions. To advance communication for building community resilience there is a need to integrate the collective component in pre-disaster communication through targeted communicative efforts that build a shared

<sup>1</sup> Network of people, community organization and media that share everyday neighbourhood stories.

<sup>2</sup> Controlled burning, pruning, chipping, and clearing inflammable plant material to reduce the quantity and the continuity of combustible vegetation.

understanding of risks, foster collective efficacy beliefs,<sup>3</sup> and encourage civic participation and collective actions among community members [4,58].

### 2.2.2. Narratives and the collective component

As discussed in section 2.1, narratives make scientific information and complex data easily understandable and relatable by translating it to everyday language and connecting it with lived experiences and struggles of community members [34]. This knowledge empowers community members to reflect on their experiences of hazard events and apply their practical contextual knowledge in finding solutions to complex hazard related problems [57]. Only when residents are well-informed and empowered to make decisions, and take proactive steps, can they exercise their ability to make choices and take actions that ensure their preparedness. Narratives also help in developing a shared understanding of reality; thereby reconciling differences on perceptions of disasters and risks among different community members, fostering a sense of solidarity and building consensus to mobilize collective action [30]. Studies have shown that narratives are an effective tool for encouraging community involvement in DRR [59,60] and there is a need to further explore their role in building resilience [9].

Drawing on the above discussion, we contend that narratives can be applied to communicate the collective component in pre-disaster communication.

## 2.3. Narratives on disasters and their limitations

### 2.3.1. Disaster narratives

Much of our understanding of disasters is shaped by what we learn about disasters when it occurs and, in its aftermath, when disasters generate interest and become newsworthy. As disasters stages are cyclical in nature, there is no marked distinction between post event and pre-event communication, our social learnings from post event narratives are carried forward and form our notions about disasters in the pre-event stage. Hence, it is important to look at disaster narratives shared during and post event and identify how it shapes our perceptions of disasters and preparedness.

Disaster narratives are shared in mass media (macro), at the town or community level (meso), or neighbourhood or individual level (micro) [35]. These narratives predominantly focus on disaster experiences and recovery [61–65]. Examining disaster and crisis related narratives, Seeger and Sellnow [66] identify five dominant narratives - accounts of blame (who is to blame), victim narratives (suffering and recovery of individuals), heroic tales (protagonist overcoming odds, exemplify altruistic behaviour), stories of renewal (narratives of growth, learning, restoration), and memorials (meaning-making of the destruction, reflects on human spirit and values, supports grieving and healing process). These narratives are fundamental in shaping our comprehension of disasters and how we can respond to them.

The first four forms of narratives are particularly influential in shaping discourse on preparedness. In the victim narrative the people that are harmed in the event are depicted as people who had no control over their situation in the face of a “natural” disaster [67]. Thus, the challenge with the victim narrative is that people are placed in a powerless position, taking away their agency to act in the event, or to act prior to the event to prevent its occurrence [68]. On the other hand, the blame narrative assigns responsibility of the event on an external agency. While blame narratives are important to highlight systemic flaws and call for corrective measures, competing narratives of blame often divide the public and remove attention from learning from the event and taking actions to prevent the event [69,70]. While regeneration narratives are circulated after extreme events, their coverage is typically short lived, like general disaster stories [71], and does little to inform preparedness narratives.

The hero narrative is favourable to promote proactive action for preparedness as it highlights human agency in the face of a disaster and promotes positive emotional and behavioural responses [31]. By placing proactive people at the centre of the story it facilitates a shift in our lens from looking at people as passive elements to active agents in the story who address local challenges by sharing their knowledge, experience and expertise [72]. Heroes can be the first responder, the leader, or a common citizen. However, stereotypical portrayals of heroes as strong masculine stoic persons in the form of first responders or efficient leaders [73] reinforces the idea that only people who possess certain characteristics, and not the ordinary common person, can make a meaningful contribution before or during disasters. Actions by citizens, even when discussed, are simplified [74] and portrayed as largely “spontaneous” [75], and reported using an individualistic lens - dissociating them from prior conditions in the community that influenced their emergence. Thus, the narratives around disasters dominant in the mass media and popular discourse often fail to acknowledge the role of human agency, pre-existing characteristics of the community, and the broader socio-political context in moderating the effects of an extreme event. This narrow framing of disaster is unfavourable for encouraging civic actions to prepare for disasters.

### 2.3.2. Pre-disaster narratives

Beyond sharing disaster warnings and occasionally playing a watchdog role in highlighting major hazard risks, the involvement of mass media in communicating about disasters prior to major events is limited [76]. This might be because of disinterest of people in preparedness stories or unfavourable public reaction to hazard risk stories [76,77].

At the meso level, emergency management agencies, and associated government agencies often are the key communicators about disasters. While narrative formats for disaster and risk communication are becoming popular [60], their adoption by emergency

<sup>3</sup> Belief that by working collectively we can minimize the effects of disaster.

management agencies and other stakeholders in public education content to raise hazard awareness and prompt protective actions is still in its infancy. The rational model of communication persists which communicate scientific information and recommended actions using a non-narrative structure [16].

The above discussion suggests that there is a lack of pre-disaster narratives and the post disaster narratives are inadequate to encourage civic participation for reducing disaster risks. A “new narrative is needed to motivate, inspire, and empower a transformational whole-of-society change in to action [67, p. 54]”. The new narratives need to highlight citizen agency in preventing disasters [31], build citizen identity, encourage shared responsibilities [67] and promote collective efficacy [76] such that collectively we can take actions that will reduce the impact of disasters.

However, an area that remains understudied is narratives on disasters shared outside mass media or public education content - like oral or conversational narratives shared in the pre-disaster stage at the meso and micro level. Studies demonstrate that conversational narratives shared amongst community members are an important avenue to promote civic participation and collective action [19,78]. Given that emergency management officials are increasingly engaging with community members to promote community resilience

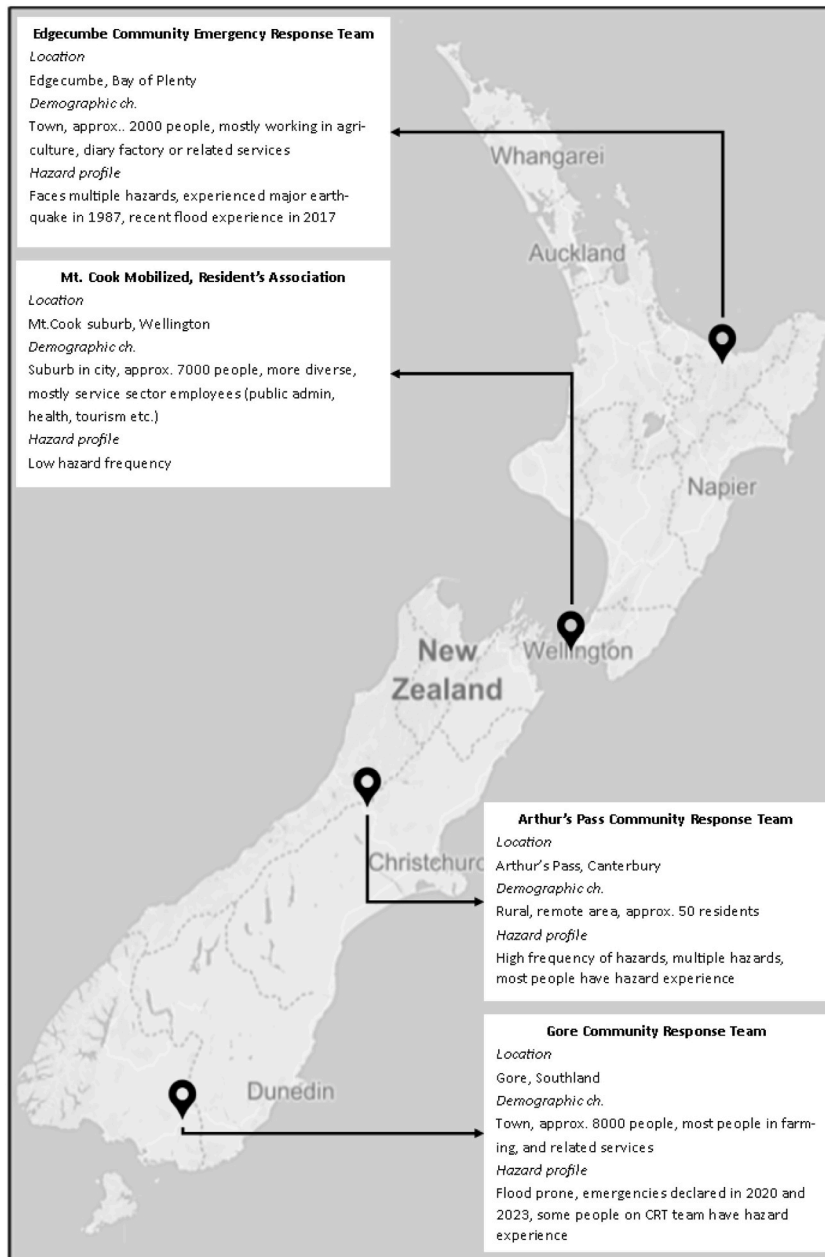


Fig. 1. Map of study areas (Edgcumbe, Wellington, Arthur's Pass and Gore in New Zealand).

through dialogical communication in the form of in person workshops, community meetings, interactive presentations, and informal conversations etc. [79,80], exploring the oral and conversational narratives become important. We are still unaware of what narratives are shared in these conversations amongst emergency management agencies, community leaders and community members, how they frame civic participation and collective action, what resonates with people and sustains in the meso and micro level, and how it influences people's perception, understanding and actions on disasters, particularly to foster civic participation and collective action. As such, our first and second research question are.

**RQ1.** What narratives are shared at the meso and micro level, particularly through oral medium?

**RQ2.** How do they frame civic participation and collective action for disaster risk reduction?

Additionally, more evidence is required on what forms of narratives are effective and what are less likely to work, particularly with regards to the emotional appeal integrated in the narratives. For example, research is still divided on whether narratives should focus on concern and worry, or optimism and hope [72]. As narratives present the story as evidence for the claim, without needing to explicitly justify their accuracy [24], there are also concerns around subjectivity and bias in narratives [57]. Additionally, as discussed previously, narratives are inherently persuasive as they engage the audience emotionally. The persuasive intent in narratives is not apparent, so they are less likely to face opposition and more likely to influence people. Given the persuasive power of narratives, there is a need to understand the ethical implications of using narratives to encourage collective preparedness, and what should be avoided [81]. Thus, while narratives are promising, our understanding of the problems associated with narratives in disaster preparedness is still evolving. In this context, our third and fourth research questions explore.

**RQ3.** What narratives about civic participation and collective action for disaster risk reduction are problematic and why they are problematic?

**RQ4.** How the issues with such narratives can be addressed?

### 3. Methods

A qualitative multi case study design was adopted to conduct the research as it helps in gaining a comprehensive understanding of the phenomena under study in a real-world setting with all its complexities [82].

Four geographic community groups working with emergency management officials to improve preparedness of their areas were included in the study – a resident's association in Mt. Cook suburb in Wellington (urban group, predominantly mobile population), the community response group in Gore, Southland (township, settled population), the community emergency response team from Edgecumbe, Bay of Plenty (township, settled population) and the community response team in Selwyn district, Canterbury (both rural and urban population) (Fig. 1). The first two were already existing groups that the emergency management agencies connected with. The community-based response teams were facilitated by the respective councils and emergency management agencies. This mix of groups were selected as they possess different demographic characteristics and hazard experiences. The objective was to identify the commonalities and differences in narratives across these different groups.

Guided by the Communication Infrastructure Theory (that proposes that narratives shared in community conversations facilitate civic engagement), we wanted to examine the narratives used in disaster preparedness communication at the meso and micro levels. To understand this, we conducted thirty five (35) interviews with emergency management officials, representatives of community-based organizations, community leaders and members of the four community groups. The questions inquired about what is communicated about emergency management, what messages, narratives and stories are shared and how community members perceive their role in emergency management. Participant profiles are presented in Table 1. Semi structured interviews of 1–1.5 h were conducted over video call or in person from February 2022 and September 2023. The interviews were audio recorded with consent except for three interviews where only written notes were taken with consent respecting the preference of the interviewees.

Thematic analysis was conducted following the five phases suggested by Braun and Clarke [83] – i) familiarization with the data, ii) generating initial codes, iii) searching for themes, iv) reviewing potential themes, and v) defining and naming themes. First, the interviews were transcribed and imported in qualitative analysis software NVivo. The transcripts were read thoroughly, reflecting on both apparent and underlying meanings. Analytic memos were written to note ideas and parallels with theoretical concepts. Then, open coding was conducted in Nvivo. Codes (meaningful words or phrases) were assigned to label data segments in the interview transcripts [84]. Attention was paid to ensure that the codes were relevant to the research questions. After the initial coding, codes pertaining to more than one data segment were selected and organized. Codes with similar meanings were condensed into broader codes as appropriate. Once coding was completed, the codes were reviewed to understand the patterns and relationships in the data and clustered to identify the potential themes. Memoing and diagramming were extensively used [85]. The potential themes were iteratively reviewed against the codes and memos to ensure the themes were coherent and meaningfully captured the data. This process involved reorganizing, collapsing, or splitting the themes as necessary. When the authors were satisfied with the themes, a final read of the data was done to ensure all important elements in the data were captured in the themes. The final themes were then organized, labelled and described, noting the subthemes and the data extracts related to the themes [83,86].

The first author attended community group meetings (4), a community emergency hub training (1) and an annual training night (1) as non-participant observer (Fig. 2). It was found that in person informal communication (e.g. informal interactions between emergency management official and community members in community events) plays an important role in disaster preparedness communication at the meso and micro level. So, the first author attended multiple community events, and social gatherings where emergency management officials, community groups and community members interacted. During these events, there were multiple

**Table 1**  
Participant profile.

Area	Participant profile and participant codes	No. of participants
Bay of Plenty	Volunteer in collective preparedness (BoP_V1 to BoP_V4)	4
	Emergency management (CDEM) official (BoP_EM1)	1
	Official from district council (BoP_EM2 & BoP_EM3)	2
	NGO personnel assisting in collective preparedness (BoP_N1 & BoP_N2)	2
Wellington	Volunteer in collective preparedness (W_V1 to W_V5)	5
	Emergency management (CDEM) official (W_EM1 to W_EM4)	4
Canterbury	Volunteer in collective preparedness (C_V1 to C_V8)	8
	Emergency management (CDEM) official (C_EM1)	1
	Official from district council (C_EM2)	1
Southland	Volunteer in collective preparedness (S_V1 to S_V6)	6
	Emergency management (CDEM) official (S_EM1)	1
	<i>Total</i>	35

**Fig. 2.** Community emergency response team meeting and training night (in Selwyn).

opportunities to converse with the participants informally and observe interactions in social settings. Rough notes were taken during the events and detailed notes were written after returning from events, based on the first author's experience of what happened. The notes reflected on what was communicated during the events, and what narratives community members shared regarding disasters that highlighted the collective element of preparedness.

We also collected documents, posters and other promotional materials shared by the agencies, written material shared during different events and written materials found in community places like libraries, cafés, shopping centres etc. regarding disaster preparedness<sup>4</sup> (Fig. 3). Content about community preparedness and resilience in the commonly referred public facing websites (Wellington region emergency management office, Emergency management Southland, Gore district council, Civil defence emergency management Canterbury and Selwyn district council) were also noted in a word document. Content related to preparedness shared in social media of the abovementioned organizations and the community groups under study for the past one year were also scanned for content related to collective aspects of preparedness, and relevant content noted in a word document.

The fieldnotes, written materials and digital content were open coded and we checked whether the ideas conveyed in these materials supported the themes drawn from the interview data. They were used as supporting data to validate the findings drawn from the analysis of the interviews.

Ethical approval for the research was secured from Massey university and ethical standards as per the university guidelines were maintained. Member checks with the participants were conducted to ensure the findings were credible and reliable [87].

#### 4. Results

The section below discusses i) how new narratives are introduced at the micro and meso level to promote civic participation in disaster preparedness, and ii) highlights the tensions arising because of the shifting narratives.

<sup>4</sup> Though narratives and argumentation are two distinct forms of persuasive statements, seldom are they used alone and often narratives contain, claims and evidence, and argumentative statements embedded in stories, and anecdotes which are narrative in nature. Based on this understanding, we intended to examine the narrative elements manifest in communication materials shared across the different channels. Refer Atkin, C. K., & Salmon, C [125]. The SAGE handbook of persuasion: Developments in theory and practice. In: Sage.



Fig. 3. Communication material shared at a meeting (in Selwyn) and found at a café (in Wellington).

#### 4.1. Preparedness narratives to encourage collective action

In the study areas, we observed a shift in narratives shared at the meso and micro level to incorporate the collective component alongside the individual component in conversations around preparedness. In the past, conversations on preparedness “very much focused on the individual”, with messages like “get your get your kit ready, have an exit plan for your family” etc.; however, the recognition that “the reality of an event is that community members tend to help each other” have caused an increase in community focused conversations on preparedness (W\_V2). We find four themes relating to civic participation and collective action in the narratives.

##### 4.1.1. Re-framing our understanding of heroes - ‘Everyday heroes’

Our comprehension of what a disaster is, what skills are valuable in disasters and who can meaningfully contribute during a disaster derives from the mainstream response centric view of disasters. The prevailing understanding is that people with specialized skills, like first responders, emergency management agencies, military, medical service providers, and community leaders are valuable in disasters with common people having little to offer. To mobilize citizens for community preparedness, it is necessary to re-shape this conception of who is valuable and how they can be valuable.

Narratives shared by emergency management officials, community organizations, and volunteers expanded the idea of who is valuable in a disaster - extending it beyond skilled practitioners to include citizens. For example, the following statement by an emergency manager shows how the idea of who is valuable, and who can be a ‘hero’ after a disaster is being reframed:

“People come up for a chat and go I’ve been wanting to maybe get a little more involved, but I don’t want to do much you know, and we are like that’s fine are you happy making a cup of tea? ... People think civil defence,<sup>5</sup> oh God, I’m going to rescue someone ... No, you can just make a cup of tea, a sandwich and that’s fine.” – S\_EM1

Similar sentiment was reiterated by senior officials at an in-person training night organized by the district council, who highlighted the potential number of deaths and harm that could have happened in a recent event and mentioned:

“If it does not happen, it is because of you.. You are the few that have chosen to serve the many and we thank you for that.” – Senior official, Selwyn district council

Acknowledging that “everyone brings something to the table that can help’, and recognizing that every contribution has a value (BoP\_EM2), offers citizens a chance to rise to the occasion and make a positive impact before and during a crisis through actions within their capacity. It does not require citizens “to be a superhero”, an exceptionally strong, brave, self-sacrificing person willing to take risks. Rather it posits that anyone can be a hero by helping through everyday ordinary actions - an everyday hero. Thus, it re-constitutes the idea of a hero by moving from a physical risk hero stance towards a principled and value driven hero who is helpful, kind and empathetic towards their community [88]. Embedded in the quotes above, we can find examples of the actions that the everyday hero can take up (provide comfort (tea, food) when a community is disrupted by an extreme event, update the council about the on-ground status, like the extent of damage, emerging needs etc.). This reconstitution brings back citizen’s agency in the narratives putting them in positions to make real world changes in ways that align with their experiences, capacities, and aspirations. Reflecting this narrative a community member mentions: “We’re not out there to save the world ... I look at it that anything that we do ... will be a help to someone, and so if you can help one person that’s fine.” (C\_V7).

##### 4.1.2. Valuing ‘connection’ and ‘care’

Relationships, such as those among family, friends and community, are crucial during emergencies as it helps in securing

<sup>5</sup> In New Zealand, emergency management functions are commonly referred to as civil defence.

information, immediate support, resources, and emotional comfort during disasters [89,90]. Additionally, the neighbourhood and geographical communities become important, as neighbours can offer immediate assistance and help address emerging issues using local resources [91]. Following this, there is an increasing emphasis on connectedness in public education and awareness messages like, “Get to know your neighbours and community” [92], “Meet your neighbours” [93], “Help keep your family, friends and community safe by getting involved in emergency preparedness” [94], “Are there people in your community who might need extra help in an emergency? Ask around and make sure everyone will be taken care of” [95] etc.

Narratives conveying the theme of connectedness are observed in conversations as well. Such narratives are often tied to a message of community care, which emphasize the importance of helping behaviours within connected communities and highlights actions individuals can take to build connections and enhance the well-being of their community members. An emergency management official states that they will often say,

“There’s people in the community that probably will need help ... if you’ve got elderly or disabled or, you know, neighbours (who need help) ... how you prepare now will mean ... that you’ll be safer and that you’ll know what to do and you’ll know how to help each other in an emergency, rather than having no knowledge at all.” – BoP\_EM1

The concept of care extends beyond people and includes care for natural resources or cultural artefacts within the community as well. One emergency management official says that they open up community meetings by asking, “why is (it that) you love your community?”, which can be for the people, local places and resources that people value. Then they discuss the threats that hazards pose to these community assets and how people collectively can take care of them.

These narratives permeate communities and are often echoed by community members, especially those engaging with emergency management agencies. One community member states that she feels the need to be more prepared to help others, like young university students living in her area, most of whom are new to the locality with limited social connections. She tries to spread the message around.

“I feel like the rest of us, we, have to be a bit more prepared so that if there’s a massive earthquake ... we might have to help them ... So, getting the message out about that” – W\_V1

Another participant in Arthur’s pass mentions that:

“Just the nature of Arthur’s pass and the fact that it is already an isolated town quite a long way from anywhere else, the locals are pretty well educated about the fact that you know the main fault<sup>6</sup> will go at some stage and we need to be kind of super independent and prepared to just deal with stuff for quite some time ... everybody’s gonna come to the party when they need to, but we do need to do probably a little bit more about keeping on top of the resourcing and planning and everything to make sure that we’re absolutely ready” – C\_V1.

The narratives on connection and care often invoke identity and expected duties towards neighbours and neighbourhood. For example, one community member notes “kiwis” grow up “with the belief that we are to care for the neighbours, the elderly, the vulnerable.” and a heightened awareness of the AF8 were “the driving force” for the person to join the community response teams (C\_V8). Similarly, the member of a church group that works with emergency management agencies to improve preparedness in their area noted “we are constantly wanting to say look our mission is to love God and love people but how do we really love people. we support one another within our community ... - watching out for one another is definitely something” (S\_V1). Such statements connect the uniqueness of the community with what values the community should carry forward, what they should preserve – in this case, their commitment to care and well-being of the community - thus attaching a call to action with their unique community identity.

#### 4.1.3. *Introducing collective efficacy in narratives*

Collective efficacy beliefs are a major factor in motivating collective action [96]. To foster a sense of collective efficacy, it is crucial to involve the community in conversations about risk and disaster preparedness [54] and highlight that collective efforts will be effective in reducing disaster risks [97]. Traditionally the emphasis of disaster preparedness communication by emergency management agencies and other stakeholders has been individual centric that stresses preparedness as mainly a personal/family level responsibility with less focus on the collective community components of preparedness [4].

However, in the study areas we could trace a shift to incorporate collective efficacy in conversations around preparedness. Statements by officials from emergency management agencies in public meetings repeatedly carried themes implying the residents are capable to take care of their neighbourhood and emergency management officials are “here to help you look after your local community”. Conversations emphasize that while disasters are overwhelming situations, community members have skills and resources that they can pull together to respond better to emergencies. For example, one emergency management official states,

“We pull out a big map and we have them map their assets ... they realize how many things that they (have).. They often go oh, we don’t have anything in our community to respond and then suddenly they realize they’ve got all kinds of things in there” – W\_EM1

Recalling experiences of the community meetings related to preparedness organized by emergency management officials, one of

<sup>6</sup> Alpine fault, a geological fault line in New Zealand’s South Island.

the participants mentions,

“So, it used to be an approach of we’re Civil Defence,<sup>7</sup> we’ll tell you what to do. Now it’s if X, Y and Z were to happen, what would you do locally? What kind of resources do you have to help yourselves? .. and once you’ve got those discussions going you find out everyone knows someone that has something.. the community knows that so and so down the road probably doesn’t have that so they’d make that a priority ... people actually started to think a bit more about what they could do.. they have most of what they need within their communities to be able to deliver a response.” – S\_EM1

These descriptions suggest a change in the approach from “big boys and girls of civil defence” saying “you (community members) sit back, and we will deliver” (C\_V6), to emergency management agencies invoking community members’ ability to effectively address many of the community concerns by acting collectively using their own skills and resources. Facilitating conversation on what people can do together remains a major focus:

“One of the big ways we certainly work towards that is with a bit of a strengths based approach.. we don’t necessarily know the best way for how people are going to prepare themselves. But we know the communities often have the answers. So, it’s often about asking the right questions or encouraging them to think about what things they already have ... and thinking about the ways people are already really capable problem solvers.” – W\_EM4

Beyond discussions on the community’s ability to be self-reliant, conversations during public meetings, events, and training nights emphasize how the community emergency response team (CERT) volunteers, street co-ordinators, community agencies, community leaders and the public are all part of “one big team working together” to reduce disaster impacts. During a CERT team meeting, an emergency management official mentioned that “by telling us what is happening in your area (during an event), you give us situational awareness ... we can make much better decisions because of that ...” thus acknowledging their dependence on inputs from the community volunteers to function better.

The shift in the narratives have also influenced the way in which the community volunteers view their role and contribution in emergency management. A respondent mentioned “we’re at the very low level, we’re only a step up from the general public ... but that’s what we are in our area” (C\_V7). This change is rooted in the evolving understanding of what preparedness means and how people participate in the process at the local level. During a group discussion, one of the participants shared how they feel the government agencies “don’t have all the staff and resources to be able to get to it (monitoring every hazard)” and so community members need to step up and the “District Council are relying on us to be the eyes and ears” (C\_V6). Such conversations enforce the idea that by working together community members can support the emergency management agencies in improving preparedness of their areas.

#### 4.1.4. Tying risk messages with collective responsibility

People’s responsibility in preparing for natural hazards is front and centre in the risk governance approach of New Zealand [98]. Public education campaigns, outreach events, and other communication activities highlight people’s responsibility to prepare for adverse events, like “Get your household ready”, take part in Shakeout Drill and tsunami hikoi etc., “Get involved” by getting the community ready or by volunteering [99–101]. Drawing on the idea of responsibility, collective responsibility in preparing for hazards is another theme.

In Southland and Canterbury, there is an increased emphasis on people to prepare due to the proximity of the Alpine Fault. The outcomes of the AF8<sup>8</sup> project have been extensively used by emergency management agencies to raise community awareness of the seismic risk in the area and encourage communities to prepare. By mentioning that it is “not a matter of if but when.” and describing what the impact of a seismic event of magnitude 8 would mean in their local area, officials explain the inadequacy of available resources to cope with its potential effects. They stress that an “all hands on deck” effort is necessary to prepare for such a massive event. For example, one emergency management official mentions that in community meetings they would say:

“A message that we pushed is we would get FENZ,<sup>9</sup> St John<sup>10</sup>, and Police in the room to stand up, and that would sometimes be actually half the group. We’d say these people are going to be needed in an emergency event ... if it’s major Alpine Fault event they might need to be deployed to other areas in Southland or Otago, so that leaves the rest of you to look after your community. You can’t rely on St John, Police and your FENZ members because they’re going to be busy, so what are you going to do to make yourself better prepared for this ... So, just making that realisation that they’re not going to be there to help you so what are you going to do.” – S\_EM1

This resonates with messages shared in print and digital media like “It’s up to you to make sure your whānau and the people you care about know what to do” [102] or “after a large earthquake, locals like you should gather at your local Hub to co-ordinate your

<sup>7</sup> Civil Defence used here to denote emergency management agencies.

<sup>8</sup> The Alpine Fault in New Zealand’s South Island is a major seismic hazard that can generate an earthquake of magnitude 8 or greater and could cause ground shaking, landslides, and liquefaction, leading to severe and far-reaching consequences. To improve preparedness to seismic hazards in South Island of New Zealand, project AF8 was launched in 2016 (Orchiston et al., 2018). As part of the AF8 project, multiple outreach activities were organized like a series of videos about seismic risks were launched in the Radio New Zealand web platform, roadshows involving public talks and school visits were held etc. (<https://af8.org.nz/explore-the-science/af8-roadshow>).

<sup>9</sup> FENZ - Fire and Emergency New Zealand, firefighting, and emergency services agency.

<sup>10</sup> ST John – Ambulance service.

community's response." (pamphlet collected in a meeting). Community members often internalize these messages, accept a certain level of responsibility, and share similar messages within their communities:

"We're agreeing to take a degree of responsibility for it on behalf of the town, because we know that this is what happens and we want to change it. So when approaching officials from school boards to encourage preparedness, I guess I'm appealing to his duty and his sense of his, his duty of care to his students and his responsibility to manage health and safety for his students." – BoP\_V1

Another participant mentions how they are close to the alpine fault and that they have "been told if the alpine fault goes, we will most probably be quite isolated, for a period of time". In such a scenario, "we may not be able to go to them (emergency management officials) for every decision that needs to be made" and will need to collectively respond to the event. By highlighting the potential for isolation and the need to be self-reliant to deal with such events, the narratives invoke collective responsibility to prepare for the event. Repeated exposure to such conversations shape people's beliefs on what can happen and how they are expected to react. The internalization of the message is evident in statements like this: "They tell us there's going to be a big earthquake of some form ... and I just want to be aware that I know what I'm going to do to help people" (S\_V5); "We need to make sure that we've got everything in line ... they (council) know where we are at and we know what they expect of us" (C\_V2).

#### 4.2. Navigating tensions and conflicts arising from re-framed narratives

The current narratives focus on what communities can achieve by working collaboratively with governmental agencies. For example, an emergency management official quoted,

"We try to, keep ourselves separate.. we don't buy into any long standing grievances that people have. We say look, we are here to help you look after your local community ... if you have a serious issue and you need help in your community, you can tell us and we can prioritize that." – C\_EM2

By clearly communicating what emergency management officials can offer and what they cannot, this statement carefully sets expectations of what can and cannot be achieved. However, it limits avenues for working on deeper developmental concerns and addressing broader systemic problems that creates risks. This causes tensions among community members who may "feel supported" but question emergency management agencies' actual "ability to change anything substantially". Expressing displeasure with the "misplaced priorities" of current preparedness approaches, one volunteer said,

"There is enormous frustration ... there is still a degree of two-faced nature – they talk like they get it but in reality they don't .... They live in their own space and do not want to get in the way (to get into conflict with other departments that handle environmental and developmental issues)" C\_V8.

Responsibility attribution narratives were found to be particularly problematic. These narratives emphasize that community members should prepare themselves and their neighbourhood for disasters. It largely derives from the perception that people do not prepare due to complacency [103]. However, in circumstances where community members do not have the resource or capacity to act on the hazard, even when they were willing to prepare, this narrative causes loss of support and goodwill. One participant from a flood prone locality mentions:

"We hear that climate change is going to make things worse and you and your community should prepare ... but you can't actually do anything because you are tied in bureaucracy ... When it rains heavily council says put sandbags but they are not pro-active response to flooding." - C\_V8

Perceptible in their statement is frustration with the government that is asking them to act without providing an enabling mechanism to take up the tasks that they are (told to be) responsible for.

Some participants highlighted how the current narrative that preparedness is people's responsibility conflicts the response centric narrative around disasters that was prevalent for many years, when emergency management officials did not want civilian involvement in disasters and there "was no value in someone who was not wearing a title or position". Additionally, some participants find that due to health and safety regulations, "the council is scared that you might hurt yourself and stops you from doing things". The lingering response centric narratives and the risk averse approach of some government departments creates hesitation and confusion among community members, often dissuading them from participating in collective initiatives.

## 5. Discussion

The findings support previous research that show narratives make messages on disaster risks understandable, engaging and personally relevant by embedding them in the local context (localized), talking about people's lived experiences (personalized) and using vivid descriptions (dramatized) [57,72]. Narratives often capture information that are lost or difficult to express in logical, rational argumentation and written documentation [104]. They help in viewing the world from different perspectives, enable meaningful discussion on experiences that are not common (like disasters) and support community interactions with emergency management agencies and stakeholders [105]. Instead of instructing people on what to do, the fluid and contextual nature of conversational narratives allow community members to discursively negotiate their role within the emergency management system. This approach helps them identify realistic, actionable steps that they can take, while respecting their aspirations and skills – thereby

breaking a lack of agency and empowering people to decide for themselves [72].

The study identified four main themes in the narratives shared by emergency management agencies in the pre-disaster stage – connection and care, everyday heroes, collective efficacy, and collective responsibility. The connection and care narrative encourages people to form social networks and informal relationships in pre-disaster situations. Research indicates that cultivating networks of mutual aid and support enhances community connections, cohesion and social capital, which plays a crucial role in building resilience [89,106].

Information, awareness and concern do not lead to action in the absence of agency [72]. The everyday hero and collective efficacy narratives are valuable because they emphasize agency, underscore personal autonomy, and encourage people to take actions for attaining intended outcomes [72,107,108]. Aligning with prior studies, we find that promoting everyday heroism is likely to help people recognize their role, value and potential to make positive social change in their communities by reducing disaster risks [109]. Also, people are asked to contribute based on their capacities and skills, which respects local capacities while avoiding putting anyone in unnecessary danger.

Promoting these narratives, however, becomes challenging as they conflict people's mental frames and perception of disasters. The current narratives diverge from the conventional view of emergency management as a top down, response centric approach that dissuades people's participation. To support a transition to new narratives that encourage pre-disaster civic participation, it's essential to emphasize that our understanding of disasters is evolving and being explicit about the rationale for the transition, instead of introducing the new narratives abruptly.

Additionally, some narratives fail to resonate with community members' experiences, evoking feelings of helplessness, frustration, apathy, or antagonism. To avoid this, it is crucial to maintain narrative fidelity, which means that for narratives to be engaging and trustworthy, they should resonate with people's experiences, beliefs, and values [110]. In a multicultural environment like New Zealand with diverse population groups who possess varied lived experiences, beliefs, and values, maintaining narrative fidelity is challenging. To address this, documenting lived experiences and insight from individuals, and communities and carefully crafting narratives that reflect the contextual realities, engage people and empower them is important [34]. Encouraging community champions and leaders to share their lived experiences, and highlighting stories of positive deviance, where local individuals and groups have independently developed innovative solutions to reduce disaster risks hold value [111]. While it is natural for narratives and counter narratives to emerge [112], there is a need to ensure that subaltern voices are not dismissed or subdued and their narratives are included and present in the broader discourse [113]. It is crucial to critically reflect on which narratives are prioritized, acknowledge counter-narratives, and present different sides of an argument to ensure that narratives do not inadvertently disempower people.

We find the collective responsibility narrative is particularly problematic in situations of resource constraints. People can adopt protective actions based on risk information only when they have the opportunity and capability to do so [72]. When people's actions are constrained due to lack of assets, competencies, resources or lack of power because of regulatory or political mandates, there is little benefit of risk communication [57,67]. Rather it causes economic strain and mental burden in people who are unable to prepare for failing to meet the expected social standards [98,114].

Additionally the current strategy of transferring responsibility of personal safety to individuals themselves is an agenda of a neo-liberal approach to risk management that shifts the burden of risk from state to people and sets social standards people should fulfil [86]. This approach depoliticizes risk by placing responsibility on individuals themselves, disconnecting it from the political, economic, and social factors that creates the risks in the first place. The consequence of not looking at developmental problems and long-standing grievances is that it shifts focus from the systemic roots of disasters, depoliticizes risk, delegitimizes community voices that demand government oversight, involvement and accountability, and closes paths of identifying transformative solutions towards building resilience [115].

Following communication infrastructure theory [35], we argue that to improve the effectiveness of current communication approaches and pre-disaster narratives, it is crucial to consider issues of resource mobilization as well (refer Resource Mobilization Theory [116]). The initial steps in attaining this can be in the form of providing information on where people can find and secure resources and offering financial and operational support from emergency management agencies and councils. However, in the longer term the discourse on emergency management needs to engage with issues of inequity and systemic barriers that creates challenges in accessing and mobilizing resources and discuss how appropriate bureaucratic and policy provisions can be made to support transformative enabling environments. This should happen through partnerships and sharing of responsibility with communities where communication is leveraged to support these changes, instead of responsibility transfer approach.

There is also a need to examine the ethical implications of using narratives in disaster and risk communication. Narratives suppress counterarguing [27] and are inherently persuasive in nature as the story justifies the claim [24]. It is important to ensure that the narratives are used cautiously, lest they become tools for manufacturing compliance. Particularly, attention needs to be paid that they are not used "asymmetrically to disseminate top-down information rather than involving authentic voices and agency from people" [34, p. 184]. As narratives are increasingly being adopted, it is crucial to establish ethical guidelines on their framing and application. These guidelines should establish that a high degree of accuracy and fairness is maintained, develop a common understanding of when the use of narratives are ethically justifiable and ensure that using narratives do not undermine people's autonomy to make choices [117].

The literature review shows that existing understanding of disasters, particularly that shaped through mass media narratives, are inadequate to foster civic participation and collective action for disaster preparedness - a new narrative that promotes citizen agency, collective efficacy, and promotes shared responsibilities is needed [31,65,118]. As such, emergency management agencies are increasingly sharing narratives that reframe the pre-conceived notions related to disasters – like who is valuable in disasters, how people can be valuable in disasters and why people need to engage in preparedness collectively. However, it is important to ensure that

this message is also reflected in mass media to maintain synergy and avoid confusion. Working closely with journalists, science communicators and other stakeholders, promoting the adoption of a disaster preparedness and mitigation angle highlighting the voice and role of local people will be beneficial [106,118,119].

While mixed opinion exists on the effectiveness of narratives [37,120,121], drawing on our data, we find that some are narratives valuable while others are problematic. We argue that the effectiveness of narratives compared to rational messages vary and rely on the quality of the narrative (how they are framed, how they reflect people's experiences etc.) and the context where they are applied [122]. Future research can explore the factors that influence the acceptability and effectiveness of narratives in the disaster context. Additionally evaluative research examining the long-term impacts of narratives would be beneficial. Narratives can also become tools to promote dominant voices while dismissing or erasing marginalized voices [57]. While this research was not focused on under-represented groups, during the research we identified a lack of diversity in narratives accounting for different worldviews, historical, social and cultural settings. Studying narratives from a critical perspective exploring how diverse groups relate to these narratives, how these narratives align with communication programmes designed for specific groups (like indigenous people, culturally and linguistically diverse communities), what concerns exist hold value. Research is also required on the ethical implications and potential misuse of narratives in disaster and risk communication.

Research on the role of narratives in generating disaster awareness and promoting individual preparedness is growing. However, our understanding of narrative in promoting civic participation and collective actions remain in its infancy. The paper contributes to this gap by documenting how narratives are adopted in emergency management communication along with rational communication approaches to promote civic participation and collective actions. The paper also advances our understanding of narratives as communicative elements that can encourage civic participation [35], enhance social capital [22] and contribute towards improving resilience [123]. The findings hold value for emergency managers, local and regional authorities, communicators and informs communication research on resilience.

## 6. Conclusion

Emergency management agencies are increasingly engaging with communities to promote disaster preparedness through communicative interventions like meetings, workshops, storytelling exercises, community champions programmes to that encourage conversations and dialogue [124]. These conversations are not structured as scientific rational arguments, rather they flow as stories and narratives shared discursively by emergency management agencies and community members. This paper examines these narratives and explores how they encourage civic participation and collective action, what the themes are in the narratives, how communities interpret and engage with them, and which narratives lead to conflicts and tensions.

Four main themes are identified in the narratives – connection and care that encourages people to stay connected, maintain informal relationships and care for their community; everyday heroes that highlight the value of simple everyday actions during situations of emergency, expanding the idea of heroism beyond physical stance heroes to anyone who support emergency management operations by caring for their communities' well-being and taking proactive measures; collective efficacy that suggest that community members can work together effectively to achieve common risk reduction goals; and collective responsibility theme that highlight community's shared obligation to collectively address risks facing their community. These narratives reframe the understanding of disasters, from a narrow response centric view, often propagated through mass media reports of disaster response, to a broader recognition disaster risks and preventive actions.

The narratives have potential to promote community agency, enhance social capital, and motivate collective actions. However, they also pose some challenges, such as confusion arising from contradiction between the lingering response-centric narratives and the current community action centric narratives, frustration over collective responsibility narratives that urge action without addressing concerns about resources and capacities, and resistance to current narratives perceived as attempts by emergency management agencies to reduce their responsibilities. To address these challenges, there is a need to critically reflect on issues of narrative fidelity, resource access and ethical considerations. We hope that by addressing these issues, narratives will become a more useful tool for disaster and risk communication, which fosters meaningful civic participation and collective action.

## CRedit authorship contribution statement

**Manomita Das:** Writing – review & editing, Writing – original draft, Methodology, Conceptualization. **Julia Becker:** Writing – review & editing, Supervision, Methodology, Funding acquisition, Conceptualization. **Emma E.H. Doyle:** Writing – review & editing, Supervision, Methodology, Funding acquisition, Conceptualization.

## Declaration of competing interest

The authors declare the following financial interests/personal relationships which may be considered as potential competing interests: Manomita Das reports financial support was provided by Resilience to Nature's Challenges. If there are other authors, they declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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## Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.ijdr.2025.105218>.

## Data availability

The authors do not have permission to share data.

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