Tailoring emergency and disaster preparedness engagement approaches for culturally and linguistically diverse communities

Abstract

The effects of emergencies and disasters pose greater challenges for people within culturally and linguistically diverse (CALD) communities. Several barriers can prevent people in CALD communities from adequately preparing for such events and this contributes to an increased vulnerability. Queensland experiences heightened natural hazard risks, therefore it is crucial to ensure that preparedness information is accessible and relevant to all communities, including CALD communities. This paper describes a qualitative study that examined the emergency and disaster preparedness information needs of people in CALD communities in Queensland. The aim was to identify better ways of delivering preparedness initiatives through tailored engagement approaches. Three focus groups were conducted with 16 CALD community leaders from the Gold Coast, Logan and Ipswich local government areas. The data gathered showed that CALD communities in these areas possessed low levels of awareness of emergencies and disasters and low levels of preparedness for such events. This study highlights the need for tailored and strengths-based engagement approaches. Disseminating information in suitable formats through preferred communication channels and partnering with trusted sources, including community leaders and places of worship, were found to be effective ways to engaging CALD communities in disaster preparedness.

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Introduction

Research has shown that a community's vulnerability to the effects of high-risk hazards is influenced by a range of complex and interconnected factors (Bolin and Bolton 1986; Ogie et al. 2018). For example, Bolin and Bolton (1986) identified ethnicity as a determinant of vulnerability and highlighted that the interplay of ethnicity and social inequalities, such as race and class, resulted in poor recovery outcomes. Language barriers, limited social networks, a lack of local risk knowledge (Marlowe et al. 2018), power imbalances (Bolin and Kurtz 2018) and limited access to information and resources (Chandonnet 2021) are understood to be major barriers for people in CALD communities. The vulnerability discourse around disaster preparedness for marginalised communities has existed for decades and continues to emphasise the importance of understanding the social and cultural dimensions of disasters to strengthen disaster resilience (Bolin and Kurtz 2018).

Research in New Zealand and Japan found that linguistic minorities confront unique hazard vulnerability, partly due to linguicism, which is described as 'language-based discrimination at multiple levels' (Uekusa 2019, p.353). For example, during the 2011 Japan earthquake and tsunami, the New Zealand 2010 Canterbury earthquake and the 2011 Christchurch earthquake, disaster warnings and announcements were made available only in the dominant languages (Uekusa 2019). During the 2014 Washington wildfires, Hispanic farmworkers did not receive evacuation notices due to language barriers, and the single Spanish radio station in the region did not receive emergency information to broadcast an

interpreted warning (Davies et al. 2018). Due to a lack of translated messages in the 2011 Queensland floods, many people in CALD communities underestimated their risks and failed to heed warnings or take appropriate actions (Shepherd and van Vuuren 2014). During the Great East Japan earthquake and tsunami in 2011, a small group of Thai women were living in a heavily affected area. Japanese people living in this region had been trained in tsunami-evacuation drills, however, the group of marginalised Thai women were disadvantaged having been excluded from such drills (Pongponrat and Ishii 2018). CALD communities in Australia have difficulty accessing resources that are culturally appropriate and accessible regarding COVID-19 and turned to international news streamed from their country of origin, which did not reflect the situation nor health advice relevant to Australia (Seale et al. 2022).

In a study conducted by the Australian Red Cross, Chandonnet (2021) examined the complex factors that shape the resilience and vulnerability of CALD communities and observed that although CALD communities remain highly vulnerable, 'many migrants and refugees display high levels of resilience, knowledge and coping capacities' as a result of overcoming the significant challenges of migration and settlement (Chandonnet 2021, p.5). Previous studies have also acknowledged that capabilities and vulnerabilities exist simultaneously in communities, and although these capabilities do not cancel out vulnerabilities, recognising and building upon them can lead to positive outcomes (Ikeda and Garces-Ozanne 2019; MacDonald et al. 2023). The *Sendai Framework for Disaster Risk Reduction 2015-2030* (UNDRR 2015) recognises that migrants contribute

their knowledge and skills through their resilience in ways that can contribute to the 'design and implementation of disaster risk reduction' (p.23).

This study sought to increase engagement of CALD communities and understand their needs in relation to preparing for emergency and disaster events and work towards the principle of the Sendai Framework of 'disaster risk reduction requires an all-of-society engagement and partnership' (UNDRR 2015, p.13).

Queensland is particularly susceptible to hazard events and has experienced more than 97 significant disasters since 2011 (Queensland Reconstruction Authority 2022) including bushfires, storms, floods and cyclones. The effects of these events have complex and long-term consequences on the community, environment, infrastructure and economy, However, CALD communities are disproportionately affected due to the exacerbation of existing vulnerabilities (Ogie et al. 2018). According to the *Special Report: Update to the economic costs of natural disasters in Australia* (Deloitte 2021), South East Queensland is expected to face the greatest increase in costs from disasters due to climate change and predicted population growth. This highlights the need for greater action to strengthen resilience in these communities. It is vital that all residents understand their local risks and take steps to prepare. However, disaster preparedness information is rarely tailored to meet the specific needs of CALD communities. This paper explores the needs of people in CALD communities to strengthen their resilience in the face of disasters.

The 2021 Australian Census results showed that more than one in 10 people in Queensland speak a language other than English at home and 22.7% of Queensland's population were born overseas. This is an increase from 21.6% in 2016 and 20.5% in 2011 (Australian Bureau of Statistics 2021). With cultural diversity increasing, the need for tailored preparedness community engagement approaches is evident.

This study explored the emergency and disaster information needs of CALD communities in South East Queensland. It concentrated on the preparedness phase of emergency management due to its ability to influence positive outcomes in response and recovery phases (Teo et al. 2018). The research sought to understand the attitudes of people in CALD communities towards emergency and disaster preparedness, the enablers and barriers to accessing and understanding preparedness information and how preparedness engagement approaches can be tailored to meet the needs of CALD communities.

A study by the Australian Red Cross found that people in CALD communities remain highly vulnerable to the complexities of disaster events.

Image: Australian Red Cross

Methodology

This study was part of a master's research project based on a workplace problem. A qualitative exploratory approach was used to draw on the strengths of CALD community

members and gain a broader understanding of their needs to address preparedness for events. The researcher is employed within a government agency responsible for the dissemination of disaster preparedness information and sought to challenge the top-down approach of information sharing by seeking the voices and experiences of the community and identify ways to ensure information is not distributed inequitably (Howard et al. 2017). CALD community leaders were recruited to participate in 3 focus groups within the local government areas of the Gold Coast, Logan and Ipswich in South East Queensland. Due to the work-based nature of the project, it was necessary for data collection to be conducted within the researcher's work area of South East Queensland and these locations were selected due to their rich diversity profiles. Community leaders were selected for the study due to their ability to share their own experiences and provide valuable insights from the perspective of their community.

A convenience sampling method was applied to recruit participants from multicultural organisations within the 3 local government areas. The researcher used existing relationships with people in multicultural organisations who assisted with the recruitment process by identifying eligible participants, sharing the research invitation and advising of culturally sensitive considerations. A total of 16 community leaders participated in the focus groups. These participants represented Kenyan, Tongan, Burmese, Qatari, Sudanese, Samoan, Nigerian, South Sudanese, Chinese and Indian communities.

Focus groups were selected as the data collection method for their ability to generate rich qualitative data regarding participants' opinions and experiences. The researcher facilitated focus groups at community facilities and followed a predetermined question path to guide discussions and enhance uniformity of data across focus group locations. Time was allocated at the beginning of each focus group to provide an overview of the research and clarify word terms that may have different meaning across different cultures.

Focus group discussions were audio recorded and transcribed verbatim. Focus group participants were advised that they could request a summary of the transcript, however, none of the participants required it. Identifiable data was removed from the transcripts and participant names were replaced with unique codes. The data was analysed using the Braun and Clarke (2006) 6-phase method of thematic analysis to identify themes. This involved examining the data, generating initial codes, searching for themes, reviewing, defining and naming themes and writing the report. The research supervisors reviewed the process and assisted with defining themes.

The research was approved by the University of Southern Queensland Human Research Ethics Committee (H21REA273).

Findings

Low levels of awareness and preparedness

Data collection took place within 5 to 9 months after the South East Queensland rainfall and flooding event of February and March 2022. This event significantly affected the research locality and some participants were able to reflect on their experience during this event and other disasters when describing their community's levels of awareness and preparedness.

Participants indicated that CALD communities possess low levels of awareness of their local risks and that they lack knowledge of how to respond appropriately during an emergency or disaster. This can lead to confusion and inaction. Examples included being unaware of where to get sandbags, how to find information, the roles of emergency services organisations, when it is appropriate to call triple zero and how to respond to official warnings. One participant reflected on a bushfire incident, saying that his community was panicked and unprepared when they received a bushfire warning instructing residents to prepare to leave:

> *And all of a sudden people in that street (had) gotten a message to get ready for evacuation and it was like a shock for everyone that we were evacuating … we don't live somewhere where there are lots of bushes … they didn't know what to do.*
> (FG3.1)

Participants reported that CALD communities are not adequately prepared for a potential emergency or disaster. One participant described being caught off guard by the South East Queensland 2022 floods and was not prepared:

> *Oh, I live in an apartment and nothing was going to happen to me, but even the balconies flooded … For me, it always seemed like a distant thing and I think that's the same with a lot of people. It happens, but it happens around me. So, am I prepared? … No, I'm not prepared at all … I don't think anyone's prepared, and I don't think anyone actually knows anything about it.*
> (FG1.2)

Low levels of awareness and preparedness in CALD communities were attributed to various factors. Some participants described their communities as passive receivers of emergency and disaster information, meaning that community members are unlikely to proactively seek out information and instead rely on emergency services personnel and community leaders to deliver important information directly to them. One participant explained that emergency services agencies had not 'sat down' with their community to discuss the issue, resulting in a lack of community action:

So far nothing has been done. First of all, because nobody has come and approached us, sat with us, held a seminar at the mosque.
(FG1.4)

Others believed that God would protect them in a disaster and this negated the need to prepare or seek information. Limited proficiency in English and optimism bias were considered by participants to be factors that hindered awareness and preparedness efforts, as outlined in this response:

There is enough information, enough means of obtaining information. But if the attitude is 'well, that's not gonna happen to me. My family and I don't need to know these things'; unless that changes, we're not going to be able to filter information down to everyone.
(FG3.3)

People's previous experiences with emergencies and disasters in other countries were also linked to low levels of awareness and preparedness. In some cases, participants indicated that disasters were more prevalent in their country of origin in comparison to Australia. In other cases, the concept of preparedness was unfamiliar because it was not promoted in other countries.

Communication channels and information formats

Participants indicated the importance of using suitable communication channels and information formats to disseminate information effectively. They described the well-established communication methods and networks that already exist within CALD communities and recommended the use of free group messaging platforms such as WhatsApp, Viber and WeChat to reach the community with important information.

Social media, especially Facebook, was also considered a suitable communication channel, particularly for younger community members. Participants noted that their communities were more likely to take notice of information published on their community Facebook groups than on government Facebook pages:

We have Viber Group, Facebook Group … if something happens, or something is going to happen, whether it be about weather or COVID…we try to send it to the group so that everyone can see it in our mother tongue.
(FG2.2)

In addition to social media platforms, face-to-face opportunities were deemed valuable, including information displays at community events or social gatherings, demonstrations by emergency services personnel and regular information sessions held in places of worship or common meeting places. Significantly, all participants agreed that the most appropriate communication channel

for emergency and disaster information was by word-of-mouth through community leaders and places of worship. The importance of emergency management agencies working together with community and religious leaders to deliver information was emphasised:

It's very important for your presence, to come and do a presentation. We can talk to you, but they like to see you there as well … We can emphasise later, but you have to put in the key point and then after you guys have left, we'll follow it up.
(FG1.4)

Information presented in visual formats, such as picture-based resources and videos, were preferred as they can overcome language barriers and be easily shared through group messaging and social media platforms. Participants reflected on their experiences during the COVID-19 pandemic where videos of community leaders presenting health messages in their language were well-received by their communities.

Several communication channels and information formats including newspapers, radio and television, were reported as unsuitable for CALD communities. This indicates that information disseminated in these ways create barriers to accessing and understanding preparedness information. SBS and ethnic radio stations were, however, considered appropriate as information is broadcast in many languages.

Government websites and information delivered through government facilities were considered to be less-effective platforms for CALD communities. Participants indicated that their communities are unlikely to approach government sources for information due to language and cultural barriers.

Emergency management organisations frequently produce emergency and disaster preparedness information in printed formats, such as brochures and factsheets translated into a range of community languages. Participants reported that print materials are less suitable for people in CALD communities due to low literacy levels, a preference for other formats and limitations associated with translation. For example, participants stated:

Even if you give them a language translated thing, they might not even be able to read that.
(FG1.3)

If you say, 'oh my god, the tsunami is coming'. Like, what is tsunami? … We don't have that word.
(FG1.1)

Additionally, slang terms used in Australia should be avoided and the use of plain English is preferred to incorporate visual aids for better understanding. For example, the popular tagline 'If it's flooded, forget it', was discussed and participants highlighted the importance of using plain English:

Just say 'don't drive'. Simple English, which everyone can read and understand … we have to spend time trying to figure it out and by the time we figure it out, we might be drowning.
(FG2.2)

Community leaders and places of worship

Participants consistently recognised community leaders as trusted and respected individuals who speak the language and can deliver critical information to their communities. They described community leaders' roles in connecting with their communities, conveying information and acting as intermediaries with service providers. Working with community leaders was seen as a vital step to ensure that preparedness information was received, understood and acted on. For these reasons, participants explained that community leaders are the preferred messengers for important safety information:

The leaders can speak the language; leaders can even contact service providers … the best way is (to) go through community leaders … they can take you directly to the community, or you deliver them the information and they deliver it to the community.
(FG3.5)

They don't tend to accept what the authority says, or what they hear from the radio. They don't give a damn about (that), they only listen to their leader.
(FG1.4)

While participants indicated an eagerness to support emergency and disaster preparedness in their communities, they also expressed concerns about the level of responsibility community leaders carry and the need for support from government. Participants stressed the importance of educating and training community leaders, ongoing partnerships between disaster management agencies, 2-way communication and funding to deliver grassroots community initiatives.

Places of worship were widely considered to be the most appropriate locations for CALD communities to receive preparedness information. Participants noted that places of worship are common meeting places for the community, where they hear from their trusted religious leaders and where they can speak their own language, making it a significant setting for information dissemination:

Most of my community here don't speak English very well … so we do encourage them just to get the information through the church where they can relay a message from one to another.
(FG2.3)

One participant emphasised the importance of taking information to where the community already gathers:

It's probably best to take the information to where they are, then they will probably take it seriously.
(FG1.2)

Discussion

This study revealed that the CALD communities represented by participants possess low levels of awareness of emergencies and disasters and low levels of preparedness for such events. This relates to multiple factors, including a lack of knowledge of emergency and disaster concepts, low English language proficiency, optimism bias, religious beliefs, reliance on others to provide critical information, previous experiences and cultural influences. This is consistent with findings of previous research that found that CALD communities were not well informed about disasters and lacked adequate preparedness, which contributed to higher levels of vulnerability to hazards (Ikeda and Garces-Ozanne 2019; Marlowe et al. 2018; Uekusa 2019).

Some of the barriers that prevent people in CALD communities from accessing and understanding preparedness information have been identified. Unsuitable communication channels and information formats that are commonly applied by government agencies were found to be ineffective. Information published on government websites, available at government facilities, broadcast through mainstream media or disseminated in printed formats may be effective for a generalised public but have been found to be unsuitable for people in CALD communities.

Translated materials may be useful for some communities; however, should not be solely relied on to inform CALD communities as materials are not translated into every language and there is a risk of emerging CALD communities missing out on critical information (Chandonnet 2021; Seale et al. 2022). In addition, translated print materials are ineffective for CALD community members who have low literacy in their spoken language or who rely on verbal communication (Chandonnet 2021).

This study identified enabling factors and revealed strengths embedded in CALD communities in Queensland. Communication strengths became apparent when analysing participant descriptions of existing methods used by community leaders to share information with their networks, particularly group messaging and social media platforms. These findings support other studies (Seale et al. 2022; Chandonnet 2021) who observed a shift towards smart phone platform preferences. In addition, participants indicated that face-to-face opportunities and information published in plain English and in visual formats were effective methods of communicating. Incorporating these channels into preparedness efforts can enhance tailored engagement approaches. Preferences

can depend on factors such as English proficiency, literacy levels, age, technology skills, cultural background, type of hazard and phase of disaster management (Chandonnet 2021). Therefore, when developing tailored engagement approaches, it is important for emergency management agencies to understand the local community (Ogie et al. 2018; Wild et al. 2021) and deliver a multi-pronged approach (Chandonnet 2021).

Another unique strength evident in CALD communities is the trusted role of community leaders. Participants indicated that engaging community leaders is critical to share information with CALD communities in a way that is easy to access and understand. It is important to acknowledge that community leaders, being participants themselves, may view these matters through the lens of their community roles and power structures. However, this finding is consistent with research regarding the role that CALD community leaders played during the COVID-19 pandemic to connect CALD communities with vital health information (Wild et al. 2021; Seale et al. 2022). Findings demonstrated that the approaches applied to the COVID-19 pandemic could be replicated in the context of other emergencies and disasters.

Places of worship were found to be a significant strength of CALD communities represented in this study and an important enabling factor for disseminating disaster preparedness information. Places of worship have a long history of supporting local communities during times of crisis when they are often relied on to provide urgent relief including food, shelter, clothing and emotional support (Sheikhi et al. 2021) and communities have indicated that places of worship would be one of the first places they would seek assistance in an emergency (Chandonnet 2021; Sheikhi et al. 2021). Participants explained that their places of worship served as a hub where the community can gather, connect, worship, learn and socialise while also receiving guidance from their leaders in their own language. Information provided during services can be shared by attendees to other families and community members, thereby extending the reach to those that may not attend places of worship. Findings indicate that there is enormous potential for places of worship to play a significant role in supporting communities across all phases of disaster management, including the preparedness phase and should be considered by emergency management agencies as suitable mechanisms to reach CALD communities.

Through understanding and harnessing these strengths, emergency management agencies can improve engagement approaches by ensuring that preparedness information can be easily accessed, understood, shared and acted on.

Limitations

This study was limited to 3 local government areas in South East Queensland and the participants were community leaders. The representation of nationalities was indicative of the local communities. Further studies could be expanded across Queensland for increased community perspectives. It is acknowledged that the participant group was predominately community leaders. This was due to the difficulty in recruiting participants from the general community who had the language skills and confidence or willingness to participate in focus groups. Due to resource constraints, interpreters were not present, therefore, only people with a level of English similar to the Level 5 International English Language Testing System band were recruited to participate in the study. This meant participants had the necessary English language proficiency to clearly understand the consent process and participate in discussions.

Conclusion

While traditional communication methods are often suitable for reaching the public, they can create barriers for CALD communities. This highlights the inadequacy of a one-size-fits-all approach that fails to acknowledge the language and cultural needs of people in CALD communities. Failing to overcome these barriers has detrimental consequences for CALD communities that have been unable to access the critical information needed to keep members and families safe in an emergency.

This study demonstrated that tailored engagement approaches that harness the inherent strengths of CALD communities might deliver successful preparedness initiatives to build resilience and reduce vulnerabilities. Therefore, tailored community engagement materials and pathways should consider the specific information needs and communication preferences of CALD communities. This challenges the existing power structures and inequalities that occur in society that perpetuate vulnerability. In doing so, it is important for emergency management agencies to form connections with trusted sources, such as community leaders, multicultural organisations and places of worship to exchange knowledge, build trust and share information. Collaborating with these trusted sources will enable agencies to understand the unique characteristics, strengths and vulnerabilities of local communities. Developing a partnership approach should also include suitable training, guidance and resources for community leaders involved in preparedness initiatives.

It is strongly recommended that emergency management agencies develop a strategy to formalise collaboration with CALD communities if they have not already done so. Working together to develop tailored communication and prioritising initiatives will contribute to better preparedness and reduce the harmful effects of emergencies and disasters.

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