Cultural competence in emergency and disaster preparedness for multicultural community engagement: Identifying gaps in the Australian context

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Australia is a multicultural society. The recent cultural diversity census released by the Australian Bureau of Statistics (ABS, 2023) indicates that as of December 2022, 27.6% of the population was born overseas. Apart from English, the top five (5) languages used in Australia are Mandarin (2.7%), Arabic (1.4%), Vietnamese (1.3%), Cantonese (1.2%), and Punjabi (0.9%). In New South Wales (NSW), the most populous state in the country with more than 8 million residents (Australian Bureau of Statistics, 2022; NSW Multicultural Plan 2020-2024), more than 2.1 million people speak a language other than English at home.

Cultural diversity in Australia is a function of various factors such as migration, expanding population, mobility of people, and cross-cultural marriages, among others. Although cultural diversity brings economic, social, and cultural benefits, it also necessitates communication practices that align with the diverse cultural fabric of Australian society.

In emergency management, cultural diversity can also pose challenges in communicating with members of culturally and linguistically diverse (CaLD) communities (Brooks, 2023; Subramaniam & Villenueve, 2020; Young & Jones, 2019). Reports from various cultural settings describe gaps in effective communication to and with multicultural groups during the COVID-19 pandemic (Brooks, 2023; Ferdinand, 2021). Governments faced challenges in their messaging about vaccination, self-isolation, lockdown protocols, and other COVID-19 related instructions, especially in communities where English was not the first language spoken in homes (Ferdinand, 2021; Ogie, Rho, Clarke & Moore, 2018; Arlikatti, Taibah & Andrew, 2014). In Australia, media reports highlighted that during disasters, such as bushfires and flooding in regional areas in New South Wales and Victoria, multicultural communities are not receiving timely and relevant emergency warnings and response instructions due to language barriers (Brooks, 2023; Arora & Selvaraj, 2022; Cassidy, 2022).

With the increasing frequency and complexity of emergencies and disasters faced by societies, building community resilience is key to assisting emergency and disaster personnel to manage these critical events (Hanson-Easy, Every, Hansen, & Bi, 2018; Seeger, Islam, & Seeger, 2021). It is imperative for the emergency management sector to proactively develop strategies for effectively communicating with people from diverse cultural and linguistic backgrounds who may be vulnerable when emergencies and disasters occur. This may be due to a lack of proficiency in English, the default language used in Australia in emergency and disaster communication.

Cultural competence, or the ability 'to understand, communicate and effectively interact across cultures' (Federation of Ethnic Communities' Councils of Australia [FECCA] 2019, p. 3) underpins effective communication with members of CaLD communities. It describes the capability of a workforce to gain an understanding of various cultures represented in the communities in which they work. Culturally appropriate communication is integral in establishing the positive relationship between emergency personnel and communities that helps strengthen emergency and disaster resilience (Duckworth, 2022; de Peralta, et al., 2019).

Fire and Rescue NSW (FRNSW) is the State Government agency responsible for the provision of fire, rescue and hazmat services in cities and towns across New South Wales in

accordance with the Fire and Rescue NSW Act 1989, the State Emergency and Rescue Management Act 1989 and other related legislation. FRNSW is one of the key agencies involved in the response phase of most emergency or disaster events throughout NSW. Its primary purpose is 'to enhance community safety, quality of life, and confidence by minimising the impact of hazards and emergency incidents on the people, property, environment and economy of NSW' (www.fire.nsw.gov.au). However, FRNSW has identified a gap in effectiveness in engaging with migrant and CaLD communities in Australia to prepare for emergencies and disasters. FRNSW posits that cultural competence is an essential tool in strengthening the existing capability of the emergency sector in Australia to effectively communicate with CaLD communities for emergency prevention and preparedness.

The purpose of this paper is to examine key literature on cultural competence in emergency and disaster preparedness. It aims to identify significant theoretical underpinnings on factors that influence cultural competence in engaging with communities from diverse cultural and linguistic backgrounds. This literature review contextualises the research gap addressed by a broader, ongoing joint initiative between the Fire and Rescue New South Wales (FRNSW) and the University of Technology Sydney (UTS) that aims to determine factors that can contribute to building the cultural competence of FRNSW as a leading emergency preparedness and response agency in Australia; to develop a culturally competent communication model that can be used by members of public safety, emergency, and disaster agencies in engaging with CaLD communities; and explore the potential of new technologies as platforms to increase resilience in CaLD communities.

Cultural Competence: Background

Cultural competence broadly describes the ability of an individual to be aware of their own cultural assumptions, values, and beliefs, while recognising that others have different needs because of their own culturally informed worldviews and backgrounds. Cultural competence, when viewed at an organisational level, involves the creation and implementation of systems, policies, and processes to ensure that cultural diversity is considered as a strength of the organisation.

Cultural competence was initially explored in the context of public health. Campinha-Bacote (2002), a key theorist who examined the role of culture in patient care, developed a model describing the process of cultural competence in delivering healthcare services. Campinha-Bacote (2002) emphasised the critical role of medical practitioners' awareness of cultural differences when caring for patients. According to her, cultural competence is an ongoing process that is grounded in healthcare providers' ability to effectively work within the cultural context of the client, encompassing the individual, the family as the immediate support unit, and the community. Figure 1 below shows Campinha-Bacote's proposition where cultural competence is the intersection of essential components of cultural awareness, cultural knowledge, cultural skill, cultural encounters, and cultural desires.

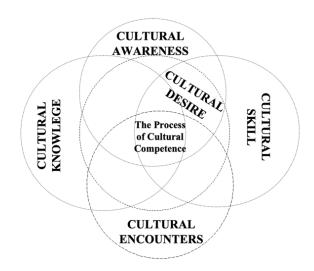


Figure 1: Campinha-Bacote's Process Model of Cultural Competence (Campinha-Bacote, 2002, p. 183)

Studies that built on Campinha-Bacote's notion of cultural competence proposed mechanisms to bridge the cultural distance between patients and healthcare providers (Martinez & Peréa, 2012). Existing studies on cultural competence describe it as a core component of patient-centred care. However, due to the dynamic and complex nature of culture, there is no definitive measure of cultural competence. FECCA (2019) maintains that 'there is no point at which cultural competence is 'achieved' (p. 4). The components of cultural competence are open-ended and should be considered at both the individual and organisational level.

Cultural competence also includes cultural humility, noting that 'cultural humility is a communication imperative' (Ferdinand, 2021, p. 587). In this context, humility includes self-reflection, self-critique, learning from others and maintaining respectful partnerships and relationships. Ferdinand (2021), in his study of vaccine hesitation in the African setting, argues that when communicating with multicultural communities, 'culturally sensitive, literacy-level appropriate education delivered with cultural humility is optimally respectful communication' (p. 587).

Drawing on cultural competence studies that are examined from a public health perspective, this paper (and the broader study) applies cultural competence to an emergency and disaster preparedness context. The attribute of cultural humility mentioned earlier (Ferdinand, 2021), for example, is integral in enhancing the skillset of emergency responders when engaging with multicultural communities.

Writing on the relationship between culture and risk, Hewitt (2008) argues that cultural factors are essential in disaster preparedness and response, as they "contribute substantially to influencing people's readiness to adopt, modify, or reject safety measures, especially those offered through outside assistance" (p. 2). Hewitt (2008) contends that culture cannot be treated in isolation from other factors, but instead, is essential for the engagement of people across diverse cultures.

Maldonado (2016) agrees, emphasising that culture is constantly evolving. He states that because 'culture is fluid, evolving, and intertwined with a host of economic, political, and social relations and tensions' (p. 52), disaster-related planning and processes must be

culturally sensitive, ongoing, and inclusive. This approach ensures that engagement with diverse communities aligns with cultural nuances, which are key drivers of success in encouraging effective preparation, response, and recovery from emergencies and/or disasters.

Methodology

The purpose of this general search was to find an array of sources that spoke to different conceptions of cultural competence in the emergency and disaster preparedness context. This scoping literature review involved an extensive search of publicly available and open access sources, including peer-reviewed journal articles, peer-reviewed conference proceedings, industry reports, government reports, and media stories.

Five key databases were used in the literature review search for this paper: Academic Search Complete (EBSCO), Communication Source (EBSCO), Communication Studies (Sage Full Text Collection), Factiva (Dow Jones), and Sage Journals Online (Sage). Key search terms included: 'cultural competence', 'public communication', 'disaster communication, 'multicultural communication', 'emergency preparedness', 'emergency response', 'disaster preparedness' and 'disaster response'.

A series of Boolean search combinations using the key search terms initially produced 1,249 search results. The research team then refined the results, focusing on categories that specifically addressed cultural competence in emergency and disaster communication. From this group, 54 peer-reviewed articles were chosen as the sample of resources for the analysis presented in this paper. The research team created a matrix to capture detailed annotations for each selected article. This matrix served as the coding mechanism, identifying key themes explored in existing research on this topic of inquiry.

Findings

Research consulted for this paper points to four cluster themes that are discussed in the scholarly terrain of cultural competence in emergency and disaster management. These are: *translation*, *tailored messaging*, *modality*, and *trust*.

Translation

Language is a central driving force for effective communication with multicultural groups. Research examined for this paper points to issues related to translation within the context of emergency and disaster communication. The analysis presented in this paper demonstrates that translation does not simply involve the literal conversion of a text from one language to another; rather, it requires a broader understanding of the cultural beliefs and needs of diverse community groups.

Alexander & Pescaroli (2019) found that direct translations are not always the most effective during emergencies and disasters. Their 2019 study focused on the role played by translators and local interpreters during crises, emergencies, and disasters. According to them, various linguistic challenges arise during such situations, encompassing both issues in translating the text and interpreting the translated text. Alexander & Pescaroli acknowledge that translation during emergencies is fraught with complexities because some words are not directly translatable to other languages. There is incompatibility of concepts. Additionally, social barriers also exist in making sense of what a translated text may mean.

Translating text and/or messages for CaLD communities requires care and cultural sensitivity. Andrulis, Siddiqui, & Gantner (2007) discuss public health emergencies in multicultural groups and argue that directly translating resources may be one approach to communicating with CaLD communities, but it does not guarantee that important messages will be clear and easily understood. They advocate for a multi-pronged approach, maintaining that communicating with CaLD communities requires the development of tailored messages, the use of trusted messengers such as community leaders, and the use of trusted channels to effectively convey messaging that will result in populations undertaking and adhering to public health recommendations.

This is further emphasised by Cadwell (2020) who focuses on the complex nature of real-time crisis translation. Cadwell (2020) argues that 'crisis translation was not only a matter of prepared, coordinated, professional translation for participants... pre-existing personal bonds may be important considerations for generating trusted information through...translation' (p. 166). Cadwell (2020) acknowledges that involving translators during emergencies depends on various factors, such as the translators' expertise, and notes the extensive training required to ensure accuracy and reliability of translation. This is essential to avoid miscommunication or gaps in communication that can exacerbate high-pressure emergency conditions.

Likewise, O'Brien & Federici (2019) emphasise that crisis translation within a multilingual context is itself a distinct form of communication. They acknowledge that translation is enacted by different people at different levels: it can be oral, written, or multimodal. According to them, translators 'do not just transfer linguistic information, but also act, very importantly, as cultural mediators' (O'Brien & Federici 2019, p. 132). They maintain that translation must be integrated as a core part of pre-crisis emergency planning to foster cultural competency of emergency agencies.

Tailored Messaging

Tailored messaging is another core component of effective communication for CaLD communities, involving the creation of messages specific to diverse groups. However, these messages are not limited to written communications. Research advocates for a multimodal approach that includes the use of images, infographics, and videos to engage users across varied levels of reading literacy. This approach is increasingly endorsed in health research, particularly in digital health interventions that aim to achieve culturally competent communication with CaLD communities.

For instance, in their study focusing on encouraging physical activity among the Latino community through a visual mobile app, Bender, Martinez, & Kennedy (2016) emphasised customising texts and messages according to the audience's literacy levels. They suggested that 'for clients with low-literacy skills, using visuals along with simple text and verbal instructions would be an effective alternative to text-based educational materials' (Bender et al. 2016, p. 8). This highlights the significance of incorporating visuals with text as a more effective tactic to enhance message comprehension and retention.

This approach is further supported by studies (for example, Gonzalez, Early, Gordon-Dseagu, Mata, & Nieto, 2021) that draw on the participatory and user-centred design approaches used in encouraging healthy lifestyle among Latinx communities. Gonzalez et.al. (2021) found

multimodality in the messaging approach, that is, dual use of text functionality as well as interactive content, was a promising avenue for culturally tailored mobile health interventions.

Similarly, Victorson et al. (2014) emphasise the importance of easily comprehensible text and diagrams in overcoming barriers faced by the Latinx communities in seeking health information. They highlight that 'tailored messages and interventions attempt to embody and incorporate unique cultural norms, values, and structures into the message or intervention itself' (Victorson et al. 2014, p. 2262). By considering the cultural values and norms of a specific population, health development and delivery can become more effective and sustained.

Cole & Murphy (2014) and Cleveraux et. al, (2010) argue for the necessity of 'community-specific materials... to reflect the hazards, risks, vulnerabilities, and needs of the target community or audience' (Cleveraux et al., 2010, p. 301), taking into consideration that each population requires a unique approach to public safety education.

Quinn et al. (2021) agree with the importance of tailored messaging, but highlight that this is a multi-sectoral responsibility shared between 'local, state, and federal public health agencies [that form] partnerships with community organisations, health care providers, faith communities, the media, the private sector, unions, and civic associations' (Quinn et al. 2021, p. 358). Their study emphasises communication with multicultural communities should be 'jargon-free, accurate, confident, and consistent' (Quinn et al. 2021, p. 356).

Multimodality

Within public safety and disaster research, digital and gamified approaches to public safety communications have also been considered. For instance, focusing on a child-friendly disaster awareness smartphone application, Clerveaux et al. (2010) find that this intervention was "effective in addressing the multicultural challenges" (p. 216) as it enabled migrant children to navigate the different stages of disasters, from preparedness to recovery. As children often serve as information conduits for their immigrant parents, who may have limited language proficiency, the application served as a means to disseminate information to these potentially vulnerable families.

Fernando et al. (2019) also discuss the effectiveness of a smartphone application designed to teach users about the different stages of an emergency or disaster. Unlike Clerveaux et al. (2010), whose app was aimed at school-aged children, the app by Fernando et al. (2019) encompassed various learning modules that were intended to take adult users through different disaster stages, while still gamifying learning and preparation for disaster events. This approach made the application accessible to users with varying levels of literacy.

Trust

Trust is a significant factor discussed in existing studies concerning the development of cultural competence when engaging with migrant and CaLD communities. During emergencies and disasters, members of these communities have varying perceptions about who they trust. Duckworth (2022) describes trust as a reciprocal relationship between governments and communities, underpinned by 'emotion, experience and evidence' (p. 19). For trust to be gained, it is important for community members to be afforded the opportunity

to work with agency responders in developing mechanisms that suit their needs in preparing for emergencies and disasters. This necessitates a two-way relationship founded on trust between communities and governments, which can be complex and time-consuming to establish.

For example, Appleby-Arnold et al. (2019) advocate a two-way approach by acknowledging the need for community members' voices to be heard and recognised. This fosters opportunities for agency responders to establish positive connection and openness with CaLD communities. Subramaniam and Villeneuve (2020) similarly emphasise the importance of communities as co-designers of approaches that work for them in emergency preparedness. Inclusion and active participation of community groups are essential in building community preparedness and resilience.

Apart from clusters of studies examining the role of government agencies as trusted leaders and sources of information during emergencies and disasters, there are other studies that emphasise the significance of multicultural communities relying on their own community leaders as credible sources for public safety information (Ogie et al., 2018; Teo, et.al., 2018; Martinez, 2012). Community leaders, once recognised and accepted by their community, play a central role in their trusted social networks. They act as both gatekeepers of information, and ambassadors for agency responders.

Trust plays a significant role in encouraging CaLD communities to take an active role in emergency and/or disaster preparedness. This trust is seen as twofold: first, in the significance of collaborating with government responders, and second, in working with community leaders to establish methods that promote community engagement in public safety during critical incidents.

Conclusion: Pointing to a research gap

This paper emphasises the need for further research and a deeper understanding of how to foster cultural competence of emergency responders assisting members of CaLD communities in prevention and preparedness activities for emergencies and/or disasters. The wide-ranging approaches and topics examined for this paper reflect varying interpretations of cultural competence. Some approaches encompass a range of actions involved in cultural sensitivity, whereas others focus on specific and targeted facets of communication.

To effectively engage with multicultural communities and enhance their preparedness for emergencies, there is need for a model of culturally competent communication that integrates these diverse elements into a holistic approach. Campinha-Bacote's (2002) cultural competence model can serve as a conceptual framework for identifying factors that reflect the Australian experience in cultural competence related to emergency preparedness among migrant and CaLD communities.

The majority of existing research focuses on the cultural competency of the messages developed and the messaging approaches used. However, there is a need for scholarly work examining cultural competence from the perspective of agency responders who interact directly with members of CaLD communities as part of their role. This points to a gap in the current literature, and identifies the need for development of a culturally appropriate communication model that can be used across the Australian emergency and disaster management sector to assist CaLD communities in preventing, preparing for, responding to,

and recovering from emergencies and disasters. The broader study that funded this paper aims to address this gap.

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