



Review Article

Collective Memory as a Disaster Preparedness Instrument: A Cross-Country Thematic Analysis

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Abstract

Collective memory has long been recognized as an essential element in shaping historical awareness, social identity, and community responses to traumatic events, including disasters. In the context of disaster risk management, collective memory serves not only as a reminder of past events but also as a source of learning and a driver of mitigation actions. This study synthesizes ten international studies that explore the role of collective memory in the context of both natural and social disasters. Using a qualitative approach based on a literature review of publications from 2019–2024, this research analyzes how the forms, functions, and challenges of collective memory are articulated in memorialization practices and risk reduction policies. The findings show that collective memory manifests through physical artifacts, community narratives, and digital practices, and can strengthen preparedness culture, psychosocial resilience, and social solidarity. However, collective memory is vulnerable to meaning erosion, narrative fragmentation, and political manipulation if not revitalized through participatory means. This study emphasizes the importance of integrating collective memory into curricula, public policies, and social media as adaptive strategies for facing new risks. Inclusive, intergenerational revitalization of collective memory is recommended as a pillar of sustainable disaster risk reduction policy.


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INTRODUCTION

Collective memory plays a crucial role in shaping community responses to disasters. It functions not only as a reminder of past tragedies but also as a tool for learning and risk mitigation. Across the world, memorialization practices such as cultural festivals, memorial sites, and disaster museums have been used to pass down traumatic experiences across generations. For example, a study on folk festivals in China shows that cultural rituals serve as channels for transmitting values and collective experiences, strengthening community bonds in facing risks (Liao & Dai, 2020). Similar findings in Aceh reveal that memorial sites are not merely spaces of remembrance but also function as educational tools and as mechanisms for strengthening social resilience (Rahman et al., 2023).

Nevertheless, collective memory is also vulnerable to the passage of time, narrative distortion, and political contestation. In Halabja, Iraq, memories of the 1988 chemical attack are passed down intergenerationally as a shared trauma but clash with official narratives controlled by political elites (Karim & Baser, 2023). Narrative contestation also appears in the case of Lampedusa, where memories of the migrant tragedy risk being erased due to the dominance of state and mainstream media discourse (Nicolosi, 2023). Meanwhile, in Wuhan, China, students who experienced the Covid-19 pandemic constructed collective memory through personal experience and media exposure, shaping both fear and nationalism (Luo et al., 2022). These findings underscore that the presence and sustainability of collective memory depend greatly on access to narrative spaces and structural support.

Although various studies have explored the links between collective memory and disaster experience, most of these investigations remain partial and context specific. Few efforts have integrated cross-regional and cross-disaster perspectives to understand how collective memory is formed, interpreted, and mobilized within risk management strategies. This research gap is what this study aims



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to address by presenting a synthesis of ten recent studies on the role of collective memory in the context of natural, ecological, and social disasters. The novelty of this study lies in its cross-case approach, as well as its critical discussion of the potential and challenges of actualizing collective memory as a strategic tool for disaster mitigation and adaptation.

Accordingly, this study aims to explore how collective memory is formed and mobilized in the context of disaster risk management, and how disaster practices, narratives, and symbolizations are used to strengthen community resilience. This review highlights the forms of collective memory expression, the challenges of its preservation, and integrative strategies that can be applied to renew its meaning alongside social and environmental dynamics.

METHOD

This study employs a qualitative approach based on a literature review using thematic analysis. This approach was selected to evaluate and synthesize the content of ten scholarly articles discussing collective memory in the context of disaster management. The analyzed articles were purposively selected based on several main criteria: (1) published between 2019 and 2024; (2) indexed in reputable scientific databases such as MDPI, Frontiers, SAGE Open, Wiley, ESS Web of Conferences, or by independent academic institutions; (3) open access and available in PDF format without paywall restrictions; and (4) explicitly addressing the existence, function, and challenges of collective memory in disaster or post-disaster contexts.

The analytical procedure began with a comprehensive reading of each article to identify key themes related to the construction, transmission, and role of collective memory within disaster dynamics. Next, the findings from each journal were classified into four main focuses: forms of memory expression, its social functions in affected communities, challenges in its preservation, and strategic potentials for strengthening collective memory through policy. The analysis employed a thematic synthesis strategy, not only summarizing each article's content but also comparing, critiquing, and elaborating on the socio-cultural context behind the findings.

This approach enabled the researcher to draw connections across cases and countries while emphasizing the study's novelty in examining how collective memory endures, transforms, or disappears within dynamic disaster risk landscapes. Critical assessment and interpretation were carried out narratively, referring to key concepts from each article and considering their relevance to broader disaster risk reduction policy practices.

RESULT AND DISCUSSION

In the context of disasters, collective memory appears in various forms, from narrative practices such as intergenerational storytelling to physical artifacts such as monuments and museums. In many countries, disaster museums serve as sites for memory preservation that also carry local cultural and historical narratives, as shown by studies on the Tsunami Museum in Aceh and Inamura No Hi in Japan, both of which use architecture and visual media to educate the public about disaster history and mitigation (Murti et al., [2022](#)). Elsewhere, as seen in the memorialization of the Vaia storm in Italy, collective memory is extended through sensory, emotional, and material dimensions that reflect a non-anthropocentric approach to disaster meaning making (Menegatto et al., [2024](#)). Memorialization studies in Aceh also highlight the importance of commemorative sites as spaces for strengthening social bonds and reflecting on loss, underscoring that memory transmission mechanisms are highly dependent on cultural context and communication strategies (Rahman et al., [2023](#)).

Furthermore, the function of collective memory is not limited to historical preservation; it also plays a strategic role in supporting preparedness and strengthening disaster risk reduction policies. The memorialization of the tsunami in Aceh shows that memorial sites not only provide spaces for remembrance but also function as educational media and as platforms for post-disaster collective identity formation (Rahman et al., [2023](#)). In a different context, studies on elderly communities have

found that life experiences crystallized in collective memory can enhance adaptive capacity and psychological resilience in the face of disasters (Navarrete-Valladares et al., 2023). Even cultural practices such as traditional festivals can serve as channels for disseminating solidarity values and preparedness rooted in collective memory (Liao & Dai, 2020). When managed participatively and contextually, collective memory can strengthen a culture of preparedness and serve as a social foundation for inclusive mitigative policymaking.

However, activating collective memory faces serious challenges, particularly when the process lacks adequate institutional and educational support. In Banda Aceh, although numerous memorial sites have been built, youth interaction with them has declined over time, indicating a loss of meaning due to outdated narratives or minimal engagement (Rahman et al., 2023). In Halabja, Iraq, the legacy of the chemical attack tragedy is passed down as collective trauma but often conflicts with the official government narrative, which further complicates shared meaning-making (Karim & Baser, 2023). The lack of integration of local narratives into mitigation policies or education systems hinders the continuity of these memories, often leaving them at the level of symbolism without sustained educational function.

Despite its vast potential, the sustainability of collective memory is often threatened by intergenerational disengagement and weak institutionalization. A historical study on millennial floods in Central Europe shows that extreme events can be erased from societal memory within a relatively short time, especially when they are not passed down through symbolic media or strong community documentation (Fanta et al., 2019). In this context, strategies to revitalize intergenerational narratives and integrate memory into digital media or curricula become crucial to ensure that lessons from the past are not lost.

Similarly, ethnographic studies in Aceh reveal that although monuments and commemorative sites were built as memory markers, shifting values, and changing societal focus have led to reduced public emotional engagement (Rahman et al., 2023). This indicates the need for refreshed approaches, such as local experience-based curricula or collective documentation initiatives that actively involve the community. Without these, collective memory risks becoming a passive symbol that can no longer transmit disaster lessons to the next generation.

Moreover, the disconnect between historical experiences and formal education weakens the potential for transforming memory into action. While visualizations in tsunami museums hold symbolic power, they are often insufficiently effective in reaching younger generations or the public when carried out in a top-down manner (Murti et al., 2022). Therefore, participatory approaches are needed in designing education programs based on collective memory, such as involving schools and community media to ensure that messages remain alive, relevant, and contextual. This strategy will not only refresh the meaning of disasters in collective memory but also adapt it to evolving threats.

In the political and social dimensions, collective memory often becomes a site of discursive contestation between state authorities and affected communities. In the case of migrant drownings in the Mediterranean, there is a conflict between the emotional narratives of victim communities and the more sterile, bureaucratic public narratives controlled by mainstream media (Nicolosi, 2023). A similar situation occurs in Halabja, where residents interpret the tragedy as a form of collective suffering that has yet to be fully acknowledged or addressed by the state (Karim & Baser, 2023). In these contexts, memory becomes a tool for the struggle for justice and recognition, which, if not channeled through participatory avenues, risks being manipulated by dominant narratives.

Therefore, it is important to create public spaces that allow communities to articulate memory independently, through digital archives, participatory art, and community narratives. In this regard, social media can serve as a form of “digital memorial” that expands representation and strengthens intergenerational connections. This approach not only protects the diversity of meanings but also reinforces policies that are more inclusive of the cultural needs of affected communities.

Adaptation to new risks also requires the updating of collective memory management. Studies on Wuhan residents during Covid-19 show how initial trauma can evolve into collective reflection on social solidarity and the role of the state (Luo et al., 2023). Meanwhile, socio-hydrological models show that strong flood memory can reduce disaster impacts when managed through structured communication and education (Song et al., 2021). These studies illustrate that when constructively directed, collective memory can become a dynamic source of social resilience.

However, not all communities are able to adapt to new risks effectively. Some remain trapped in outdated understandings that are no longer relevant to contemporary climate change. Therefore, it is important to integrate scientific approaches with local culture through community experience-based curricula or citizen-based documentation training. These efforts not only revive collective memory but also channel it as a foundation for more contextual and sustainable risk mitigation.

Ultimately, all these findings indicate that revitalizing collective memory requires collaborative strategies between communities, governments, and cultural actors. Museums, festivals, digital archives, and social media should not be understood merely as nostalgic instruments but as vital infrastructures for building community resilience. Policy support from the local to national levels becomes crucial in ensuring the sustainability of these practices as part of transformative and socially just disaster risk reduction strategies.

CONCLUSION

This study concludes that collective memory plays a strategic role in shaping a culture of preparedness and supporting sustainable disaster risk management. Through various forms such as museums, monuments, festivals, community narratives, and digital archives, collective memory not only preserves traces of past experiences but also serves as a tool for education, identity reinforcement, and social mobilization. When managed participatively and adapted to local cultural and risk contexts, collective memory can enhance psychosocial resilience, strengthen solidarity, and encourage active community involvement in mitigation actions. Conversely, without narrative updates, community engagement, and institutional support, collective memory risks experiencing erosion, generational disconnection, or political manipulation that undermines its function in disaster risk reduction.

Based on these findings, it is recommended that governments, educational institutions, and local communities develop contextual, multi-level, and intergenerational strategies to revitalize collective memory. This can be achieved through local experience-based curricula, support for community media and living public memorial spaces, and the integration of digital technologies as means of transmitting and actualizing memory. However, this study has limitations as it is a synthesis of ten journal articles without field data or direct ethnographic approaches. Therefore, future research is suggested to explore the actual practices of collective memory in disaster-affected communities through empirical methods and to expand the scope to include non-natural disasters such as pandemics or social conflicts, thereby enriching our understanding of the dynamics and functions of collective memory in contemporary risk landscapes.

Declarations

Ethics approval and consent to participate

Not applicable.

Consent for publication

The author has given approval for the publication of this manuscript.

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