Crisis Messaging and Public Response During the 2025 Central Texas Flash Flood

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Introduction

In July 2025, Central Texas experienced one of the deadliest flash floods in modern U.S. history, resulting in more than 130 fatalities and widespread disruption across the Hill country (CBS News, 2025; Nevitt, 2025). Despite the availability of meteorological forecasts and public alert systems, many residents failed to take timely protective action. In rapid-onset disasters, such as flash floods, the effectiveness of public warnings depends not only on the availability of hazard information, but on whether messages are timely, clear, and actionable. Prior research demonstrates that failures in crisis communication can create an action gap in which individuals receive warnings but struggle to interpret risk or act appropriately, which can have a significant impact on community outreach and Extension efforts (Lindell & Perry, 2012; Reynolds & Seeger, 2005). Furthermore, evaluating crisis communication efforts aligns with the AAAE research value of "promoting personal responsibility and safety in AFNR systems" (AAAE, 2023, p. 16). As a result, this study examines the effectiveness of 2025 Central Texas flood warnings in terms of timeliness, clarity, and actionable instruction during a rapid-onset disaster.

Theoretical Framework

This study is guided by the Crisis and Emergency Risk Communication (CERC) model developed by the Centers for Disease Control and Prevention (Reynolds & Seeger, 2005; Veil et al., 2008). CERC outlines phase-specific principles for effective communication across emergencies. This analysis focuses primarily on the Initial Phase principles of *Be First* (timeliness), *Be Right* (clarity), and *Promote Action* (actionability), which are particularly critical during sudden-onset flood events (Lwin et al., 2018). The Evaluation Phase is also used to examine post-crisis critiques of warning systems and identify structural constraints affecting message delivery. CERC provides a structured framework for assessing whether public warnings support understanding and protective behavior during rapidly evolving hazards. In applying CERC, this study focuses on how warning messages were delivered and interpreted rather than on forecasting accuracy alone. The framework allows for examination of how message timing, consistency, and directive language influence public understanding and response, while also acknowledging that warning effectiveness is shaped by system credibility and delivery reliability (Veil et al., 2008).

Methodology

We conducted a qualitative content analysis using newspaper coverage of the 2025 Central Texas flood (Hsieh & Shannon, 2005). To do so, we collected articles from the Texas A&M University Library's NewsBank database and spanned June 27 to July 14, 2025, capturing the pre-crisis, crisis, and immediate post-crisis phases. The initial search yielded 154 articles. After excluding reports focused primarily on casualty counts, personal loss narratives, political commentary, or duplicated content, we reduced the sample to 42 articles. A final review during coding excluded 15 additional articles lacking substantive communication data, resulting in a final dataset of 27 newspaper articles. Finally, we deductively coded the articles using the Crisis and Emergency Risk Communication (CERC) framework (Reynolds & Seeger, 2012), with analysis focused on Initial Phase principles of timeliness, clarity, and actionability, as well as Evaluation Phase insights related to systemic critiques and warning protocol improvements.

Findings

Analysis revealed three recurring themes during the Initial Phase of the flood response: lack of timeliness, message ambiguity, and limited actionability. Warnings were frequently issued after flooding had begun or escalated rapidly, narrowing the window for protective action and reducing the relevance of early alerts (Burger et al., 2022; Savoia et al., 2023). Messaging often relied on technical language and inconsistent flood thresholds, which obscured the severity of risk and made it difficult for residents to assess personal exposure. In many cases, alerts lacked clear and directive guidance, contributing to confusion, normalcy bias, and delayed response (Sutton & Wood, 2025). Together, these communication challenges limit the ability of warning messages to support timely decision-making during a rapid-onset disaster.

Evaluation Phase findings identified three additional themes: technological and budgetary gaps, alert fatigue, and the need for protocol reform. Post-crisis reporting highlighted underfunded warning infrastructure, outdated flood maps, staffing shortages, and legislative inaction as contributors to unreliable communication systems (Samansiri et al., 2023). Repeated non-specific alerts further reduced responsiveness, with some residents disengaging from official warning channels. In contrast, the use of directive and standardized language in downstream communities demonstrated improved public responsiveness, underscoring the importance of clarity, consistency, and system credibility in crisis communication (Merz et al., 2020). These findings indicate that communication breakdowns were not isolated message errors but reflected broader system-level weaknesses that shaped how warnings were received and interpreted. The interaction between delayed messaging, unclear risk cues, and limited system credibility constrained residents' ability to recognize urgency and act decisively, which could also have broad implications for community response and emergency preparedness.

Conclusions

The findings indicate that ineffective flood warnings during the 2025 Central Texas event were not caused by a lack of hazard information, but by failures in message timing, clarity, and delivery reliability, which points to a gap in risk and crisis communication preparedness. These failures were interdependent and contributed to a critical action gap in which residents received alerts but struggled to translate them into protective behavior. Systemic constraints further weakened message credibility and reduced public trust in official warning systems.

Implications

This study underscores the importance of standardized, directive warning language supported by reliable communication infrastructure. For professionals working in agricultural communications, extension, leadership, and emergency education, the findings highlight the need to translate technical risk information into clear, actionable guidance that reduces cognitive burden and supports timely decision-making. Integrating CERC principles with institutional investment and delivery redundancy can strengthen crisis communication practices and improve public compliance during rapid-onset disasters. By examining how warning messages influence protective decision-making during extreme events, this study advances research focused on public safety and personal responsibility within AFNR-related communication contexts. In doing so, it contributes to a deeper understanding of how communication practices shape individual and community-level responses to safety risks.

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