

A Systematic Review of Social Media Use in Public Crises and Emergencies

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Background: Social media is transforming how individuals, public health officials, and emergency management professionals communicate during public crisis events including disease outbreaks, natural disasters, and terrorist attacks. With an increasing number of people using social media during public health emergencies, authorities focusing on emergency preparedness and management need to know how to integrate these powerful communication tools into emergency communication plans. Although organizations are increasingly incorporating social media in their crisis and emergency planning, there are still questions about how to optimize the use of these web-based technologies and how to evaluate the use of social media during emergency events.

Purpose: This systematic review surveys the risk and crisis communication literature to examine how researchers have studied the role social media plays in public crises and emergencies. The review particularly focuses on examining how researchers have evaluated social media use and identified opportunities and challenges related to its use in public crises.

Methods: Two reviewers reviewed 24 full-text articles meeting the inclusion criteria. The majority of the studies focused on social media use during natural disasters (n=11), followed by infectious diseases (n=6), manmade disasters (e.g., chemical spill) (n=5), terrorist events (n=2), and food borne illness (n=3). Social media types included blogs and microblogs (n=20); social networks (n=9); content communities (n=4); and collaborative projects (n=3). The most commonly studied platforms were Twitter (n=17) and Facebook (n=9). Message content and structure was the most commonly studied aspect of social media (n=18). Studies were commonly descriptive (n=21); only three studies included an experimental design.

Conclusions: All studies evaluated at least one aspect of social media impact. Findings provide insight regarding the opportunities and challenges related to social media use in the context of public crises.