Social Media in Disaster Medicine

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Introduction

The exponential growth of social media is responsible for the highly participatory structure of the web as it exists today. Initially utilized by individuals, it has progressively been embraced by organizations. Social media has been recognized in both traditional media channels and the academic literature as potentially having "direct and immediate implications in the fields of emergency preparedness, and disaster response"1. This poster will examine the role of social media in the field of disaster medicine by examining previous strategies employed as well as the academic literature available.

Methodology

Academic databases as well as mainstream search engines were searched. Abstracts for 217 results from OvidMEDLINE were reviewed and 17 articles were deemed relevant. Search on Proquest found 48 results, of which 11 were selected for full text review. Similar searches were conducted on Google and Google Scholar. Searching was limited to papers written in English.

Social Media in Disaster Medicine, by Use Type

Social media usage in disasters can broadly be classified into three categories: as a platform for decentralized communication between affected individuals and communities; as a platform for centralized communication by authorities; and thirdly as a mechanism for engagement of wider and international communities.

Social media usage in disaster settings was initially characterized by the use of micro-blogging and photo sharing sites such as Twitter and Flickr as seen in the 2008 Mumbai, India attacks2 and the 2007 Virginia Tech Massacre3. In this context, social media allows for information exchange, interpersonal contact, as well as almost certainly serving some purpose in debriefing of affected individuals and communities.

One of the first examples of a targeted initiative was the development of Ushahidi, a web-based platform that allows data gathered via SMS or web to be visualized on a map or timeline. This platform was developed for Kenyan’s 2007 protests4, and then utilized in the 2010 Haiti earthquake5, and the 2007 Virginia Tech Massacre6. In this context, social media allows for information exchange, interpersonal contact, as well as almost certainty serving some purpose in debriefing of affected individuals and communities.

In the 2010/11 Queensland, Australia floods, the Queensland Police Service maintained a groundbreaking social media presence. The organisation claims up to 450 Facebook post views per second over the peak 24 hour period of the floods6.

Advantages and Disadvantages

Dissemination of information via social media may be more rapid, more economical, and more dynamic than traditional media channels. However, misinformation may also easily propagate. Disaster response involves large numbers of responders, and the structural complexity of this network is quite high, potentially making coordination difficult. While cellular networks may be more robust than traditional landlines6, power outages in disasters often exceed the usual battery life of smart phones, even in developed settings.

Conclusion

There is great scope for further publication and research in this field. Merchant (2011) highlights the need for studies evaluating the reliability and validity of public health related communication through social media, along with assessments of the cost, quality, and outcome implications of the use of social media within disaster medicine7.

We are seeing a transformation of social media interactions in natural and humanitarian disasters from little more than "an arbitrary consequence", to proactive "tools to manage and facilitate"6. Social media’s omnipresence and familiarity make it an increasingly vital component of disaster response, and this is reflected in the small but rapidly growing body of literature examining this modality of communication.