

Abstract

Introduction : In major destructive accidents, one of the major challenges for health system staff and rescue teams is to have a stable and accessible communication system. The advent of information and communication technology in recent years has improved communication in all areas, and social networks can be used as a means of increasing communication capacity and crisis preparedness. Communicating with the general public through social media during health-related accidents and risk situations is a complex process involving multiple groups including public cooperation and interaction in decision-making process. To effectively influence preventive health behaviors, social media messages between health officials and the general public or specific communities must be carefully designed. Accordingly, the purpose of this study is to determine the role of social networks in earthquake relief phase and provide a suitable model for Iran.

Methods : This study is an applied research that was performed by a combined method in three stages. The first stage of the study consisted of two phases. In the first phase, a systematic review was conducted in Persian and English language databases with the aim of determining and identifying the role of social networks. In second phase, which was done qualitatively, interviews were conducted with experts to determine the barriers to using social networks, the strategies applied in social networks, and to determine the facilitators in using social networks respectively. The second stage was a quantitative, qualitative study with an exploratory approach that was conducted to determine the role of social networks. This stage also consists of two phases. In the first phase, the role, performance and participation of the main group of relief programs including victims and relief workers attending at the time of accident and rescue were determined

quantitatively through a questionnaire. In the second phase, the content of messages of the social networks including Telegram and Instagram (some of which were collected and stored by the researcher during the earthquake and some of which can be accessed through the archives of these networks) was analyzed during the relief and rescue. In the third stage of study, the purpose was to provide a model for how to use social networks in the earthquake relief and rescue in Iran. In order to achieve this goal, after collecting the results of the previous stages, a panel of experts was formed and these measures were analyzed through group discussion, and their feasibility was examined and finally a model for using social networks in disasters was extracted and presented. In the quantitative part of the study, the data were analyzed through SPSS software and the qualitative part data was encoded through word software and their results were reported.

Results: After searching and screening the available studies, the final synthesis was performed on 18 articles. Reviewing the studies, 16 articles from Twitter and 2 from WhatsApp were selected to assist in the event of earthquakes. It reveals that the highest use of social media is in the first hours after the earthquake and up to the first three days. The synthesis of studies led to the identification of two main categories including need identification and information along with 7 categories and 17 subcategories respectively. The qualitative phase of the study was extracted by synthesizing the interviews, two main categories of challenges and opportunities of using social networks in effective crisis management. Challenges of using social networks in four classes were classified including 1) lack of readiness in crisis management system to use social networks 2) legal and ethical gap in the use and management of social networks 3) social challenges in using social networks, and 4) insufficient knowledge or education in using the capacity and opportunities of social networks in two classes : 1) recovery and increase hope in the

affected community and 2) the possibility of playing a role in providing relief in response to the crisis. In addition, the findings related to role of social networks in relief using CERC model revealed that social networks played a critical role in Kermanshah and Kuhbanan earthquakes considering all 14 defined categories of this model.

Conclusion: Considering the findings of present study and consolidating the issues based on previous studies, it can be said that the most important role models in social network management in disaster relief are in eight areas including education, infrastructure, structures, laws, monitoring, public aid guidance, informing, and information finding. Also, according to the proposed model, social networks play an important role in all stages of crisis management, and the government should organize and implement various strategies and related measures with a comprehensive plan for organizations and public community involved in relief and rescue.

Keywords: Virtual Social Networks, Emergency Relief, Earthquake, Crisis, Virtual Messages, Instant Messages, Instagram, Telegram, Kuhbanan, Kermanshah



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Title

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