



LETTER TO EDITOR

The Role of Dentists in Rapid Response Teams for Disasters

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Dear Editor,

Dear Editor, disasters, such as earthquakes, hurricanes, and floods, cause widespread devastation and severely impact the affected populations (1). In the wake of such events, immediate medical attention is often prioritized, focusing on life-saving interventions and treating severe injuries. However, one crucial aspect of healthcare that is frequently overlooked during disaster response is oral health (2). Dentists can play a vital role in rapid response teams for disasters, providing essential dental care, preventing further complications, and contributing to the overall well-being of affected individuals (3). This letter aims to highlight the importance of including dentists in disaster response teams, share experiences from past disasters, and propose recommendations for effectively integrating dental care into disaster response plans.

The Importance of dental care in disaster response

Oral health is an integral part of overall health, and dental emergencies can have significant consequences if left untreated (4). Dental issues such as toothaches, infections, and trauma can cause severe pain and discomfort, hindering an individual's ability to eat, sleep, and perform daily activities (5). In disaster situations, where access to regular dental care is disrupted, these issues can escalate rapidly, leading to complications such as systemic infections. Addressing dental

emergencies promptly is essential to prevent further health deterioration and improve the quality of life for disaster-affected individuals (1).

Experiences from past disasters

The role of dentists in disaster response has been demonstrated in various past events (4). Here are a few examples:

Nepal Earthquake (2015): Following the devastating earthquake in Nepal, dental teams were deployed as part of the disaster response. These teams provided emergency dental care, including tooth extractions, treatment of infections, and management of dental trauma. Their efforts helped alleviate pain and prevent complications in the affected population (6).

Japan Tsunami (2011): Following this tragedy, dentists participated in victim identification. However, only 7.6% of successful identifications were based on dental records, highlighting the challenges in Japan's dental identification system (7).

Hurricane Maria in Puerto Rico (2017): After Hurricane Maria struck Puerto Rico, dental professionals were included in the rapid response teams (8). They provided essential dental services, such as emergency tooth extractions and treatment of infections, to the displaced population. Their presence in the disaster response efforts underscored the importance of oral health in

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overall disaster recovery (9).

Recommendations for integrating dentists into disaster response teams

To effectively integrate dental care into disaster response, the following recommendations can be considered:

1. Inclusion in Disaster Preparedness Plans and Dentists should be included in disaster preparedness plans at local, national, and international levels (3). This involves establishing protocols for the rapid deployment of dental teams, ensuring the availability of necessary supplies and equipment, and providing training on disaster response (1).

2. Collaboration with Healthcare Providers

Effective disaster response requires collaboration between dental professionals and other healthcare providers (5). Integrating dental care into the broader healthcare response ensures comprehensive care for the affected population (6). Coordination between medical and dental teams can lead to better health outcomes and more efficient use of resources (2).

3. Establishment of Mobile Dental Clinics

Mobile dental clinics are essential for reaching remote and underserved areas during disasters. These clinics can provide a range of dental services, from basic exams to emergency treatments. Investing in mobile clinic infrastructure and training dental teams to operate in these settings can enhance the reach and impact of disaster response efforts (1, 3, 6).

4. Public Education and Outreach

Educating the public about the importance of oral health during disasters is crucial (6). Dental professionals should participate in public education campaigns that provide practical tips for maintaining oral hygiene in challenging conditions. Outreach efforts can help empower individuals to take proactive steps in caring for their oral health, even in disaster situations (2, 5).

5. Focus on Vulnerable Populations

Disasters often disproportionately affect vulnerable populations, such as children, the elderly, and individuals with pre-existing health conditions (1). Dental care programs should prioritize these groups, ensuring they receive the necessary care and support. Tailored interventions can address the specific oral health challenges faced by these populations, improving their overall well-being (3).

6. Continuous Training and Capacity Building

Regular training and capacity-building initiatives for dental professionals are essential to prepare them for disaster response. This includes training on emergency dental care, management of dental trauma, and collaboration with other healthcare providers. Building a pool of trained dental responders can ensure a swift and effective response in future disasters (3-5).

Conclusion

The inclusion of dentists in rapid response teams for disasters is vital for providing comprehensive healthcare to affected populations. Dental care plays a crucial role in preventing complications, alleviating pain, and improving the overall well-being of individuals in disaster situations. By incorporating dental professionals into disaster preparedness and response plans, we can ensure that oral health is not neglected and contribute to more effective and holistic disaster recovery efforts.

Keywords

Disasters, Disaster Medicine, Oral Health, Dental Health Services, Emergencies

References

1. Li G, Chang B, Li H, Wang R, Li G. The role of dental professionals in pandemic events and disaster responses. *Disaster Medicine and Public Health Preparedness*. 2021;15(6):785-9.
2. Chaudhary PK, Patthi B, Singla A, Malhi RK, Khan A, Goel D. Role of dental professionals in disaster management: a review. *Int J Drug Res Dent Sci*. 2021;3(02):129-41.

3. Yamazoe J, Naito H. Roles of dental care in disaster medicine in Japan. *Current Oral Health Reports*. 2022;9(3):111-8.
4. Vallamchetla K, Maloth KN, Chappidi V, Goyal S, Ugrappa S, Kodangal S. Role of dentists during mass disasters: A review. *Journal of Indian Academy of Oral Medicine and Radiology*. 2017;29(4):371-3.
5. Narayanan SP, Rath H, Mahapatra S, Mahakur M. Preparedness toward participation in disaster management: An online survey among dental practitioners in a disaster-prone region of Eastern India. *Journal of Education and Health Promotion*. 2023;12(1):68.
6. Dutta SR, Singh P, Passi D, Varghese D, Sharma S. The role of dentistry in disaster management and victim identification: an overview of challenges in Indo-Nepal scenario. *Journal of maxillofacial and oral surgery*. 2016;15:442-8.
7. Kato T, Morita H, Tsuzuki T, Yamaguchi M, Ohta H, Tanoue D, et al. Emerging role of dental professionals in collaboration with medical personnel in disaster relief following the 2016 Kumamoto earthquakes: implications for the expanding scope of dental practice. *International dental journal*. 2019;69(2):79-83.
8. Chandra A, Marsh T, Madrigano J, Simmons MM, Abir M, Chan EW, et al. Health and social services in Puerto Rico before and after Hurricane Maria: Predisaster conditions, hurricane damage, and themes for recovery. *Rand health quarterly*. 2021;9(2):10.
9. Rodríguez-Madera SL, Varas-Díaz N, Padilla M, Grove K, Rivera-Bustelo K, Ramos J, et al. The impact of Hurricane Maria on Puerto Rico's health system: post-disaster perceptions and experiences of health care providers and administrators. *Global Health Research and Policy*. 2021;6:1-11.