

Disaster Dentistry: The Forgotten Essential

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Conflicts of interest: Authors mention that there is no conflict of interest in this study.

Keywords: dentist; disaster; health promotion; humanitarian aids; screening

Received: December 6, 2022

Accepted: December 12, 2022

doi:[10.1017/S1049023X22002473](https://doi.org/10.1017/S1049023X22002473)

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Ahmadi Marzaleh M, Sharif Zadeh Ardakani M. Disaster dentistry: the forgotten essential. *Prehosp Disaster Med.* 2023;38(2):270–271.

Dear Editor,

After the occurrence of disasters, the human and financial losses caused are generally significant, and sometimes their effects continue long after the event. The main priority in disaster management is rescuing the survivors and preventing the increase of casualties by relief groups, whose members include people with different skills, who are present voluntarily or involuntarily, to help and deliver services when disasters occur. The health care group and medical service providers, including doctors, nurses, and other specialties, are considered one of the central departments present in disasters, which play an essential role in people's health and saving their lives. Given the history of disasters and the emphasis of international organizations on improving infrastructure as much as possible before disasters occur to reduce the losses and casualties with a correct and timely response, it seems essential to use all capacities. Dentists, as part of the treatment staff, and effect with other specialties, can have a practical impact in this field, which has often received less attention. Therefore, this study aimed to investigate the role of dental services in disasters.

Due to the change in people's health behavior after disasters, including problems with access to water and healthy food, lack of health facilities, along with injuries and physical disabilities and stress caused by disasters until the time of returning to the original state, which often takes a long time, the possibility of oral and dental diseases becomes more common. An increase in the occurrence of oral and dental diseases due to lack of hygiene is possible due to the problems arising for people after disasters, and the role of dentists is essential in preventing and reducing its occurrence.

Given the existence of a relationship between diseases caused by lack of oral and dental hygiene, the occurrence of other conditions that are sometimes fatal, such as pneumonia, especially in susceptible older adults or those with underlying diseases, has been stated in studies. Studies conducted in past disasters in East Asia show that one of the causes of mortality, especially in the elderly, after disasters is aspiration pneumonia, which can be reduced by maintaining oral and dental hygiene and improving chewing and swallowing function.¹ The role of dentists is essential in examining the condition of the mouth and teeth and taking basic preventive and therapeutic measures such as scaling, extraction of unmaintainable teeth, and oral health education to create a relatively suitable and stable condition in people, and to have them regularly monitored until they return to normal life. Dentists can help at any stage of disaster due to their skills and knowledge in the field of health; they have a significant, flexible, and practical impact on the management of the injured.

During disasters, dentists can examine and treat the injured people in the form of general services (including examination of vital signs, cardiopulmonary resuscitation, hemostasis, and bandages)² and specialized services in the head and neck area (including examination of traumas and fractures of the head, mouth, and teeth). Also, dentists can provide dental services to people in need with portable devices and equipment during disasters in an emergency manner, including treatment of cracks and dental fractures and fixing or extracting loose teeth at risk of aspiration. From previous trauma or causes, repair and adjustment of artificial teeth of older people to prevent aspiration and improve chewing and swallowing in post-accident conditions, drainage, or performing necessary actions to control the progress of infection in infected or susceptible teeth. Determining the identity of accident victims from medical records and radiographs is also one of the other applications of dentistry in disasters. If there is dental history and radiographic images of people, it can help to identify them in disasters, even when the facial tissue is lost or some of it remains. Sometimes, even having the number of teeth and the past treatments used for them facilitates a high percentage of identification.^{3–5}

Conclusion

During disasters, in addition to providing oral and dental health services, dentists can be an efficient force in other fields related to rescue and emergency. Also, dental science, with the help of advanced equipment, is effective in other areas needed during disasters, such as identifying the dead or providing mobile oral and dental services for head and neck traumas, along with delivering emergency services and general treatments in the field.

However, less attention has been paid to it, which has recently been emphasized in studies. Low-income and middle-income countries have many challenges regarding oral and dental health. Therefore, by planning and making policies in the field of education and health promotion in the field of oral and dental health before, during, and after disasters, it is possible to help reduce the costs of the health system.

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