

Abstract

Nebraska Dentists preparedness for a mass bioterrorism or pandemic attack

By

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Introduction:

Terrorism is no longer a stranger to the United States of America. Neither are the dangers that come hand in hand with terrorism. The 2001 anthrax attacks and the September 11th attacks on the World Trade Center are indicators of what could potentially happen to our health system in current day society. Having a quick and organized response would reduce death rates, injuries, turmoil, and disease. Dentists, along with other health professionals, are potentially able help prevent or mitigate these consequences and relieve stress to our health system by providing life saving services such as mass vaccinations, clinical patient care, or triage in the event of a major public health emergency. This study is testing the current availability, willingness and preparedness of dentists to provide expanded health services in the event of a mass destructive attack.

Hypotheses

H₁: Nebraska Dentists are not prepared to respond to bioterrorism pandemic attacks.

H₂: Nebraska Dentists are willing to participate in Biological Terrorism/ Emergency Preparedness Training (BT/EP).

Purpose:

The purpose of this research project is to inform others of how the Nebraska Dental Health System would be prepared to respond to a bioterrorism event. We will be studying how Nebraska Dentists perceive themselves and how willing they are to participate in and respond to a disaster through surveys. The intention of this study is to determine the outlook of Nebraska dentists in order to implement a possible program that would train dentists and possibly other health professions to respond effectively in the event of a biological terrorism or emergency incident.

Methods:

To test these hypotheses, we devised a survey about dentist's knowledge, training, and willingness to respond to a catastrophic event in roles related to prevention and recognition of bioterroristic events, and leadership or expanded practitioner responses to an event. A survey composed of 11 questions was sent by fax. Next, we identified the subjects that would be surveyed by obtaining a database of licensed practicing dentists in Nebraska. A purposeful sample of Creighton alumni from the School of Dentistry who reside in the state of Nebraska

were surveyed. These individuals would be the target audience for educational and development programs. We then used the Statistical Package for the Social Sciences (SPSS) analysis software and developed a database to set up an organized data collection and entry process. Codes were assigned to the surveys to track responses. Lastly, the surveys were distributed through fax and e-mail survey techniques followed with telephone follow-up surveys to non-respondents. Our target was to obtain information on the availability of dentists, preparedness of dentists, the willingness of dentists to participate in BT/EP training and their degree of preparedness.

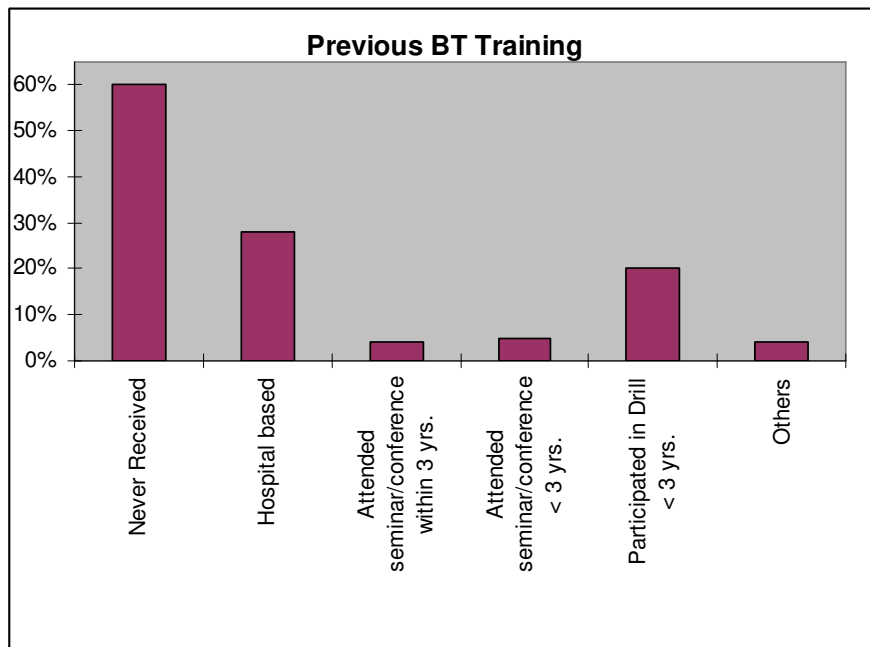
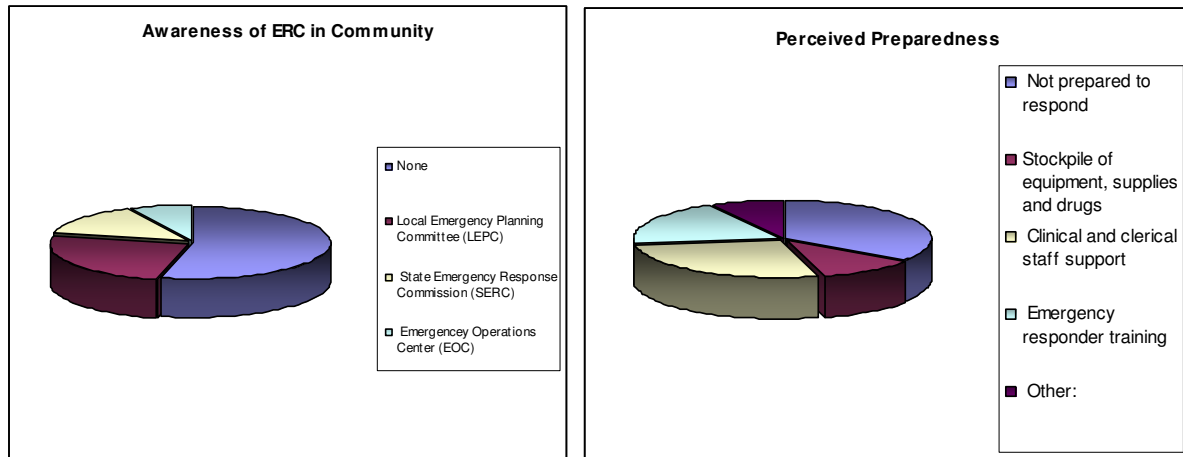
Results:

Forty-three dentists were sent surveys from the alumni list. Of the 43 surveyed, 26 were returned and one was classified as incomplete. The 25 responses were compiled and descriptive statistics of the respondents calculated. The results indicate that 52% of the dentists surveyed felt that they were not prepared to respond. Of the 48% who felt they were prepared, 40% could provide clinical and clerical staff support, 28% received Emergency responder training, and 16% had a stockpile of equipment, supplies, and drugs.

Responses Arranged by Selected Variables		
Variable	Percent	Amount
Gender		
Male	80%	20
Female	20%	5
Race:		
White (Non-Hispanic)	88%	22
African American	0%	0
Hispanic	0%	0
Asian	12%	3
Other:	0%	0
Type of Dentistry		
Community	72%	18
Other:	28%	7
Awareness of Emergency Response Systems in Community		
Yes	40%	10
No	60%	15
Willingness to Provide Assistance		
Mass Vaccinations	60%	15
Coordination with other health care providers	88%	22
Emergency Operations Center staff and communications	36%	9
Triage	44%	11
Clinical Patient Care	40%	10
Others	4%	1
Previous BT Training		
Yes	24%	6
No	76%	19
Perceived preparedness		
Not Prepared to respond	52%	13
Stockpile	16%	4
Clinical	40%	10
Emergency	28%	7
Other	12%	3

Of the dentists that had the highest sense of preparation to handle a bioterrorism/ mass epidemic attack, 60% never received or participated in training. Of those who received training, 40% participated in hospital based exercises, 30% participated in an exercise or drill more than 3 years ago, and 10% attended a seminar or conference presentation more than three years ago.

Seventy-six percent of the dentists had no emergency preparedness training or participated in EP exercises outside of their practice, 20% received EP training through the military, and 4% were employed in another profession that actively involved emergency management and planning.



All dentists surveyed felt they have a role in participating in helping relieve the Nebraska Health System through participating in emergency responses such as mass vaccinations, coordination with other health care providers, triage, clinical patient care, and emergency operations center staff and communications. Eighty-eight percent believe they have a responsibility to cooperate with other health care providers, 66% believe they have a responsibility to provide mass vaccinations, 44% to provide triage, 40% to provide clinical patient care, and 36% believe they are responsible for providing Emergency Operations Center staff and communications.

Conclusions:

Many Nebraska Dentists are not prepared to respond to a BT event, but are willing to participate in Biological Terrorism/ Emergency Preparedness Training. Adequate training could consist of incorporating EP/BT training into academia and post-professional organizations. With further training made available, dentists can make great contributions to the Nebraska Health System in the occurrence of bioterrorism and major health emergencies.

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