

Disaster Preparedness

Student's Name

Institutional Affiliation

Course Number: Course Name

Instructor's Name

Due date

TO: All medical staff

FROM: David Johnson

DATE: May 28, 2021

SUBJECT: Disaster Preparedness

Tornadoes cause devastation and damage throughout the United States annually. On May 22, 2011, a tornado ripped through Joplin, Missouri. This disaster claimed the lives of 161 people, destroyed approximately 8,000 buildings, and caused significant economic damage. The scale of natural catastrophes that struck Missouri in 2011 could not have been expected. Nonetheless, the unpredictability of tornados necessitates the preparation and planning of coping mechanisms that would reduce the rate of harm, loss of life, and destruction of property.

The 2011 Joplin Disaster Response

Positive Events

In the aftermath of massive destruction to the city, health workers and EMS from Joplin and mutual help institutions established medical care and outdoor triage for casualties. Within one and a half hours of the tragedy, St. John's workers had rescued 183 patients from the collapsed hospital (Houston et al., 2015). These personnel organized triage procedures in the parking area outside the health center to aid inpatients and other wounded victims. Health workers also transferred patients in critical condition to St. John's Hospital in Springfield, and to Freeman Health System, which is about a mile away from St. John's. Additionally, volunteers utilized ambulances, trucks, and any other intact vehicles to transport patients. Nearly 70 organizations supplied ambulance services to the city of Joplin following the disaster. Despite the damage caused by the tornado, the responses to the crisis were helpful in reducing more loss of lives.

Challenges of the Response

The devastation caused plenty of challenges to overcome. This catastrophe entailed widespread oncoming storms, the destruction of a hospital, various sites needing medical attention and rescue, communication failures, and a limited number of ambulances and responders burdened with emergencies. Regardless of the local EMS organizations' participation in countless drills and training over the years, nobody was prepared for the magnitude of the calamity.

Possible Improvements of the Response

The response to the tornado could have been improved in several ways. Ascertain that the incident commanding officer and other officials set aside time to develop one- to two-hour operational intervals and pause to assess performance (Choi et al., 2020). Backup kits with flashlights, paper, and pencils, should also have been utilized to set up a secondary hotline for further contact with personnel following the breakdown of communication methods such as internal phone. Equally, to-go packs of cell phone chargers, batteries, and water, located around the building should also have been used. It would have been useful to make sure that every staff member had multiple, valid identification cards, and had a strategy in place for a lockdown with a crowd control process. Last, having an established system for managing certified volunteers would also have been beneficial in managing the crisis. The effects of the tornado would have been less if all stakeholders were better prepared.

Tornado Preparedness

Planning

Thinking forward is what planning entails. Tornadoes can strike without notice or with minimal warning. Thus, it is essential to make preparations ahead of time, such as observing

tornado warnings and watches, recognizing the warning signals, and devising an emergency plan to brace for the disaster (Jauernic & Van Den Broeke, 2016). Moreover, protocols for managing hazardous items on-site, regulations to ascertain all workers are accounted for, and specifications on ideal areas to seek refuge must all be detailed in the plan.

Organizing

Only a well-organized institution can work react effectively during a tornado. This means that the hospital must purchase emergency supply packs and have an adequate amount of personnel to establish a solid emergency response framework. A proper organization constitutes a division of responsibilities and duties, allowing efficiency during a crisis.

Coordinating

The institution would respond more efficiently to a tornado if all operations are coordinated. It is critical to synchronize the emergency procedures by ensuring every worker's designated role during the disaster complements the others (Walters et al., 2020). As a result, I would set up an alarm system to alert personnel and develop strategies for warning those who do not speak English or are disabled. A proper communication system among employees would improve emergency responsiveness.

Commanding

Personnel would understand what is expected of them if they are given clear directives on crisis management. All workers' responses to a tornado would be optimized if they are provided specific instructions about the responsibilities they must enact. Consequently, I would assign precise responsibilities to employees beforehand, and write checklists for each duty. If the allocated employee is unavailable or injured, I would train and designate replacement staff. A

subordinate command that embodies disaster management strategies is instrumental in tornado preparedness.

Controlling

Determining if operations are conducted per the emergency plan is essential in managing a tornado outbreak. Therefore, I would ensure that everyone's actions are consistent with the institution's overall policies of disaster response (Kuligowski et al., 2016). I would also perform tornado drills regularly so everyone understands what to do in the event of a tornado, to ensure conformity. Subsequently, I would examine the outcomes in light of the standards and performance, and take corrective action if necessary. Preventing deviations from the hospital's emergency response plan would enable reliable tornado management.

Conclusion

Every institution is responsible for the health and safety of its employees, and ensuring a healthy and safe work environment. Management is expected to safeguard its personnel from the dangers of the recovery and response activities that they will be performing. Crisis management for tornados should be a top priority among health stakeholders and government officials to avert future harm.

David Johnson

Chief Operating Officer

References

- Choi, J., Robinson, S., Maulik, R., & Wehde, W. (2020). What matters the most? Understanding individual tornado preparedness using machine learning. *Natural Hazards*, 103, 1183-1200. <https://doi.org/10.1007/s11069-020-04029-1>
- Houston, J. B., Spialek, M. L., Stevens, J., First, J., Mieseler, V. L., & Pfefferbaum, B. (2015). 2011 Joplin, Missouri tornado experience, mental health reactions, and service utilization: Cross-sectional assessments at approximately 6 months and 2.5 years post-event. *PLoS currents*, 7. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4639320/>
- Jauernic, S. T., & Van Den Broeke, M. S. (2016). Perceptions of tornadoes, tornado risk, and tornado safety actions and their effects on warning response among Nebraska undergraduates. *Natural Hazards*, 80(1), 329-350. <https://doi.org/10.1007/s11069-015-1970-9>
- Kuligowski, E. D., Lombardo, F. T., & Phan, L. T. (2016). Human Response to and Consequences of the May 22, 2011, Joplin Tornado. In *Extreme Weather, Health, and Communities* (pp. 311-350). Springer, Cham. <https://doi.org/10.1007/978-3-319-30626-1>
- Walters, J. E., Mason, L. R., Ellis, K., & Winchester, B. (2020). Staying safe in a tornado: A qualitative inquiry into public knowledge, access, and response to tornado warnings. *Weather and Forecasting*, 35(1), 67-81. <https://doi.org/10.1175/waf-d-19-0090.1>