

Background

Historically, people with disabilities, including individuals with traumatic brain injury (TBI), are at an increased risk during emergency situations because responding localities have underprepared to effectively serve this group.

Since 2006, regulations have been in place requiring the inclusion of people with disabilities in all aspects of preparedness plans. In emergency situations since 2006, including Hurricane Irma in 2017, the 1000-year flood in South Carolina in 2015, and the 1000-year flood in West Virginia in 2016, implementation of these inclusive protocols still fell short.

It is postulated that a myriad of social and psychological factors influence the overall underpreparedness of people with disabilities in emergency situations. For example, identified risk factors for unpreparedness include the likelihood of people with disabilities to live in poverty influencing their financial ability to be adequately prepared. Another example is that people with disabilities may be less likely to believe that they are at risk for an emergency situation or natural disaster, or that it won't be as bad as they are being told. Research suggests that in order to overcome these barriers, localities must work differently with people with disabilities in order to better prepare them for potential emergencies and their responders to address the unique needs of this group.

In order to prevent reoccurring inefficiencies in emergency response, a review of the literature to determine promising practices was necessary.

Objectives

- Identify ways that TBI survivors can prepare themselves for emergency situations
- Identify promising practices in emergency response system design for local communities

Methods/Description of the Program

• An in-depth review was conducted on literature spanning back through 2009 that outlines research into emergency preparedness for individuals with disabilities. That research was overlaid with known potential characteristics of people with traumatic brain injury to identify potential needs in an emergency situation. Based on those needs, promising practices were extracted specific to individuals with TBI.

Findings/Results

Known potential characteristics of people with TBI:

- Headaches
- New learning difficulties
- Reading comprehension
- Fatigue
- Memory loss
- Concentration processing difficulties
- Impaired judgement
- Inability to multitask/prioritize
- Anxiety

- Impulsive behavior
- Changes in vision or hearing
- Body temperature regulation changes
- Failure to recognize deficits
- Inability to think abstractly
- Seizures
- Difficulty sleeping
- Word finding problems

Recommended Emergency Preparedness Actions for Individuals with TBI

- Have an identification document on person that outlines your specific needs including important phone numbers
- Create a written plan
- Practice the safety plan regularly
- Develop a buddy system for support
- Prepare seven days of medication and personal/medical care supplies
- Keep important documents relating to your medical conditions easily accessible
- Acknowledge the locations of local emergency shelters and determine accessibility for your needs
- If you have a higher level of need than available, consult with your local emergency personnel in preparation
- For immediate assistance, contact emergency services directly rather than through their social media accounts, since these are not monitored during emergencies

Recommended Emergency Preparedness Protocols and Emergency Response System Design for Local Communities

- Include individuals with disabilities in your planning and training scenarios
- Create policies specifically designed to aid individuals with TBI
- Know the population of TBI individuals in your coverage area
- Use television to provide emergency information
- Design emergency shelters to provide for specials needs, i.e., physical accessibility, quiet areas
- Prepare transportation for individuals with mobility disabilities
- Provide preparation training to individuals with TBI in preparedness
- Conduct periodic safety drills including individuals with TBI
- Be prepared to communicate to meet the needs of individuals with TBI (e.g., large print, picture signs, culturally sensitive language)





- Problems organizing
- Slowed reaction time
- Lack of initiation
- Attention span difficulties
- Depression
- Rapid mood swings
- Gait problems
- Speech difficulties

People with disabilities are at a higher risk of being unprepared in emergencies. First responders have historically have been underprepared to respond effectively to the needs of people with disabilities in emergencies. Federal guidelines now require the inclusion of people with disabilities in all aspects of emergency planning, preparation and training scenarios. Despite these more recent federal regulations, emergency preparedness for this special population is still lacking. There is limited research into best practices to ensure the safety of individuals with disabilities in emergencies. However, promising practices are beginning to emerge in the field. A study on comprehensive approaches is needed.

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Traumatic Brain Injury Survivor and First Responder Preparation

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Conclusions