The Role of Occupational Therapy in Disaster Preparedness, Response, and Recovery: A Concept Paper

Purpose

The focus of occupational therapy is to support people’s health and participation in life through engagement in occupations (American Occupational Therapy Association [AOTA], 2008). Natural and human-created disasters are increasing in frequency throughout the world (Rodriguez, Vos, Below, & Guha-Sapir, 2009) and have a significant negative impact, both short- and long-term, on the health and occupational engagement of individuals, families, and communities. The purpose of this concept paper is to provide occupational therapy practitioners with a basic understanding of disasters so those occupational therapy practitioners can support people’s health and participation in life across the spectrum of disaster preparedness, response, and recovery. Beyond reading this concept paper, time for additional training and reflecting on one’s own preparedness and motivation is needed prior to engaging in this important work.

Overview

When a societal crisis occurs, individuals, families, communities, institutions, and society as a whole become “disabled”—that is, limited in their ability to perform normal daily activities; restricted by environmental barriers; prohibited from participating in usual life roles; threatened by personal and financial losses; and subjected to a variety of psychological reactions, including fear, helplessness, and loss of confidence (Scaffa, 2003). Along with other people who experience a natural or technological (human-made) disaster, occupational therapists and occupational therapy assistants are victims and survivors of these experiences. However, occupational therapy practitioners also have the opportunity to be part of the solution for helping people prepare for, respond to, and recover from the disaster. They can use their understanding of occupations, occupational disruption, and activity analysis to increase individual and community readiness for and response to the disaster; to minimize or prevent maladaptation or further injury; and, ultimately, to promote health and recovery through an occupation-based approach.

Occupational therapy scholars have proposed several ways in which occupation can mediate the effects of stressful situations and promote health (McColl, 2002). Occupation can contribute to a person’s sense of mastery and reinforce identity. It can restore habits and normalcy and can re-establish routines and meaningful roles. Many occupations that focus on taking care of self and others are health-promoting and are essential in responding to and recovering from trauma. Finally, occupation is a means through which people support themselves and others and through

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1When the term occupational therapy practitioner is used in this document, it refers to both occupational therapists and occupational therapy assistants (AOTA, 2006a). Occupational therapists are responsible for all aspects of occupational therapy service delivery and are accountable for the safety and effectiveness of the occupational therapy service delivery process. Occupational therapy assistants deliver occupational therapy services under the supervision of and in partnership with an occupational therapist (AOTA, 2009).
which they connect to their larger communities and social networks.

In this paper, disasters are defined, and the five stages of a disaster are presented. Next, assumptions that inform occupational therapy practitioners’ participation in disaster relief are identified, followed by a discussion of occupational therapy’s potential contributions before and during times of disaster. The role occupational therapy practitioners can play in the stages of disaster work—disaster preparedness, disaster response, and disaster recovery—is outlined and provides an overview of how to initiate involvement in any of these stages. Finally, the relationship of disaster preparedness and relief to the *Occupational Therapy Code of Ethics and Ethics Standards (2010)* (AOTA, 2010a) is provided, followed by a call for involvement in disaster work and research.

**Definitions and Background**

In 1961, Charles E. Fritz, a pioneer in disaster research, defined *disasters* as

> Actual or threatened accidental or uncontrollable events that are concentrated in time and space, in which a society or a relatively self-sufficient subdivision of a society undergoes severe danger, and incurs such losses to its members and physical appurtenances that the social structure is disrupted and the fulfillment of all or some of the essential functions of the society, or its subdivision, is prevented. (p. 655)

This definition describes not only the physical damage and personal injuries that are typically sustained during a disaster but also the potential widespread social and economic disruption of daily-life routines.

Typically, disasters are classified into two categories: (1) natural and (2) technological (or human-made). Natural disasters include earthquakes, fires or wildfires, floods, heat waves, hurricanes, landslides and debris flow, thunderstorms, tornadoes, tsunamis, volcanoes, and winter storms/extreme cold. Technological disasters include biological threats, chemical emergencies/threats, computer attacks/viruses, dam failure, explosions, hazardous material leaks (e.g., oil spills), mass transportation accidents, mining accidents, nuclear blasts, nuclear power plant emergencies, prolonged or widespread power failures, radiological dispersion device activations, and any other terrorist activities (Federal Emergency Management Agency [FEMA], 2010; Fischer, 1998; Schneid & Collins, 2001).

Disasters progress through five stages, each requiring different behavioral and organizational responses:

- **In the first stage, the *pre-impact period*,** a warning of impending disaster may allow for preparation. For example, the National Weather Service may issue a hurricane warning, which prompts individuals, families, and institutions to put disaster response plans in effect while time permits. In some cases, though, there is no warning, and the pre-impact stage is short or nonexistent, such as when a mass shooting at an academic institution or a massive oil spill occurs unexpectedly.

- **The second stage, the *impact period*,** is generally the shortest in duration but the most
dangerous in the life cycle of a disaster. In this stage the disaster is experienced in full force. Research has shown that altruism and an outpouring of concern for the victims of natural disasters is the norm, and people tend to share food, equipment, and supplies and assist one another in recovery efforts. Perceptions that antisocial behavior and widespread panic occur immediately following a disaster have not been substantiated by the literature (Drabek & McEntire, 2003; Fischer, 2002; Tierney, Bevc, & Kuligowski, 2006).

- In the third stage, the immediate post-impact period, search-and-rescue and evacuation efforts are initiated, the media generate increasing coverage of the event, and emergency organizations begin to respond.
- During the fourth stage, the recovery period, clearance of debris is completed, essential services such as electricity and water are restored, preliminary reconstruction plans are initiated, and daily life routines begin to normalize.
- The fifth and final stage, the reconstruction period, may last from several months to several years depending on the scope and the severity of the disaster. Reconstruction involves the rebuilding not only of structures but also of individual lifestyles and a sense of community.

According to Fischer (1998), the mental health effects of disasters often last longer than the physical manifestations.

Assumptions

This paper is based on the following nine assumptions gathered from the literature:

1. Natural disasters have been increasing in frequency throughout the world since 1998 (Rodriguez et al., 2009) and deprive persons of their right to participate in life-sustaining and meaningful occupations.
2. When disaster strikes, already-difficult circumstances are exacerbated for marginalized populations, such as persons with disabilities, elderly individuals, people with chronic illnesses, children, the poor population, and indigenous groups. These groups are especially vulnerable and disproportionately affected by disasters (Smith & Notaro, 2009).
3. Disaster situations generate significant personal loss and environmental changes that can adversely affect adaptive occupational performance of individuals and communities across all areas of occupation (Rosenfeld, 1982, 1989; Tuchner, Meiner, Parush, & Hartman-Maier, 2010).
4. Disasters can generate significant traumatic stress (Diamond & Precin, 2003; Tuchner et al., 2010; Young, Ford, Ruzek, Friedman, & Gusman, 1998), and survivors’ usual coping strategies may prove inadequate for disaster situations (Rosenfeld, 1982; Tuchner et al., 2010, Young et al., 1998).
5. Engagement in occupation can moderate the effects of disaster (McColl, 2002; Tuchner et al., 2010).
6. Occupational therapy practitioners can contribute to interdisciplinary efforts of disaster preparedness through their use of activity analysis, skills at grading and adaptation of tasks, knowledge of contexts, and an understanding of the occupational needs of individuals and families.
7. In disaster situations, the focus of occupational therapy is to facilitate engagement in occupations in order to enhance adaptive responses to the disaster and to resume valued life
habits, routines, roles, and rituals (AOTA, 2008).

8. Occupational therapy practitioners can assist individuals, families (Tuchner et al., 2010), and communities in coping with disaster situations and in returning to optimal occupational performance (Rosenfeld, 1982, 1989).

9. Occupational therapists and occupational therapy assistants can identify disruptions in occupational performance patterns and help clients develop new, effective patterns of performance by facilitating the process of occupational adaptation (Rosenfeld, 1982).

**Occupational Therapy Contributions in Times of Disaster**

Occupational therapy practitioners can and should be involved in disaster preparedness, response, and recovery. In working with individuals, families, and communities affected by disasters, occupational therapy practitioners bring a set of core practice skills grounded on the importance of occupational engagement. Working together with the client, occupational therapy practitioners can plan and implement interventions that enable people to reestablish balance and engagement in as many areas of occupation (e.g., activities of daily living [ADLs], instrumental activities of daily living, rest and sleep, education, work, play, leisure, social participation) as possible by

- Evaluating people’s occupational balance, occupational performance (functional abilities), and performance patterns;
- Configuring contexts (i.e., cultural, personal, temporal, virtual,) and environments (i.e., social, physical) to maximize occupational engagement and social participation; and
- Analyzing occupations and activities to determine the underlying requisites for effective performance.

In addition, occupational therapy practitioners have mental health knowledge and skills (in common with other professionals) that are useful in disaster management and response. Possession of this knowledge and skill facilitates inclusion of occupational therapy practitioners on mental health intervention teams in times of disaster.

**Occupational Therapy Contributions in Disaster Preparedness**

Disaster preparedness involves actions taken before a disaster that enable a community to respond effectively. This requires planning at the community, organizational, and household levels. Planned interventions designed to address system-level concerns, as well as direct service interventions for the individual, are necessary to ensure safety and facilitate normalization. Organizations and businesses should develop emergency response plans, train employees in how to handle emergency situations, acquire needed supplies and equipment, and conduct response drills and exercises (Tierney, Lindell, & Perry, 2001). Individuals must know what these plans entail so that they can proactively remain safe or seek help, when needed, in a timely and efficient way.

When interfacing with disaster response teams, it is important to know the hierarchical structure of agencies and organizations involved in planning, responding, and facilitating recovery from
disasters. The National Disaster Medical System is a section within the FEMA in the U.S. Department of Homeland Security. It is responsible for managing and coordinating the federal medical response to major emergencies and federally declared disasters. Its focus is to ensure medical response to a disaster area in the form of providing teams, supplies, and equipment; moving injured people from disaster sites to unaffected areas; and identifying the types of medical care available at participating hospitals in unaffected areas.

All states are divided into local regions with Disaster Medical Assistance Teams (DMATs). These teams develop and implement plans to meet physical and mental health needs during disasters in their areas. State, county, and local agencies, businesses, and community organizations, as well as individuals may assist these teams in disaster planning, response, and recovery. Participating in “table-top” and other mock disaster drills at the local, state, and national levels as a member of a team provides needed training. Becoming affiliated with local and national organizations, such as the American Red Cross, community emergency response teams (CERTs), mental health crisis services, critical incident stress management (CISM) teams, and employee assistance programs prior to a disaster increases the credibility of the occupational therapy practitioner and facilitates involvement when a disaster occurs.

Occupational therapy practitioners should select the level of involvement and role that best matches community need as well as their personal availability, skills, and knowledge. Practitioners can apply their expertise in several settings, including health care facilities, schools, businesses, and shelters. Those who work in health care facilities should participate in discussions of existing policies and procedures, as well as the role of occupational therapy in the promotion of the safety of clients during a fire or severe weather conditions, including consideration of what to do when these conditions continue for an extended period. For example, when a predicted hurricane arrives, plans are already in place for securing facilities, moving those with special needs, and providing food and shelter and necessary medications for the short term. But if the storm is fierce, and has caused extensive destruction, then staff need to be able to design and adapt spaces, modify expectations, create new physical and social environments, and provide support services for those under their care for an unknown period of time.

Schools often are the most likely place that children will be when a disaster occurs. School disaster planning is essential and typically consists of identifying school crisis teams, delineating the roles of staff during an emergency, and establishing processes for reuniting children with their parents. Occupational therapy practitioners who work in academic settings (e.g., K–12 schools, universities) can assist in school planning regarding the requirements of students with special needs. For example, occupational therapists can assess the medical and mental health resources that are available in the school environment and assist in the development of individualized emergency care plans for students with disabilities (Asher & Pollak, 2009; American Academy of Pediatrics, Council on School Health, 2008). According to Asher and Pollak (2009), occupational therapists are uniquely qualified to identify the elements of an emergency care plan, including “how the student is transported, moved, and positioned; any personal equipment that may need to accompany the student; where to exit the building; or when to stay in the building” (p. CE3). In addition, occupational therapy practitioners can offer their expertise in planning for disasters by recommending the use of compact, easily stored supplies for age-appropriate activities during disasters such as a prolonged “lock down,” flu or disease
outbreak, or blizzard.

Occupational therapy practitioners can help DMATs and employers design plans to evacuate workers with disabilities effectively in the event of an emergency and can train staff and volunteers to work in shelters for people with special needs prior to disasters. Occupational therapy practitioners planning system-level interventions can ensure that shelters and other emergency sites are organized in ways that minimize environmental barriers. For example, they can ensure that people with mobility limitations will be located near restrooms to facilitate independence in self-care. Such planning also decreases the number of environmental modifications or kinds of adaptive equipment that will be required to address self-care needs and privacy concerns. Occupational therapists have the expertise needed to plan, organize, and direct programs in shelters and to train and supervise volunteers. In addition, practitioners can work with individuals or groups of individuals with disabilities on their own emergency preparedness plans (Diamond & Precin, 2003).

Knowledge of available resources and understanding of local plans for responding to such disasters are critical to effective rapid humanitarian responses. Sensitivity to occupational performance needs and facilitating choice in occupational engagement is a unique marker of the services provided by occupational therapy practitioners (Stone, 2006) and dissimilar to any that are likely to be provided by other members of the response team. It also is essential that practitioners have in place appropriate plans for their family’s care during the extended period when they may need to remain on duty at their institution to help prevent conflicting demands on their energies and emotions.

**Occupational Therapy Contributions in Disaster Response**

Emergency response involves actions taken just prior to, during, and shortly after disaster impact to address the immediate needs of victims and to reduce damage, destruction, and disruption. Emergency response activities include detection of threats, dissemination of warnings, and evacuation of vulnerable populations. In addition, they include search for and rescue of victims, provision of emergency medical care, and furnishing of food and shelter for displaced persons (Tierney et al., 2001). The daily concerns of older adults after Hurricane Katrina included “securing basic resources, facing communication difficulties, and finding transportation” (Henderson, Roberto, & Kano, 2010, p. 48). All disaster-related interventions should recognize and be delivered within the hierarchy of needs framework, typically survival, safety and security, and food and shelter needs are primary, followed by health, both physical and mental (National Institute of Mental Health [NIMH], 2002).

During times of disaster or emergency, all professionals are called on to provide their expertise voluntarily in the service of others. Occupational therapy practitioners are qualified to provide disaster response services to people with special needs. FEMA defines special-needs populations as people in the community with physical, mental, or medical care needs who may require assistance before, during, or after a disaster or an emergency, after exhausting their usual resources and support network. During a disaster, people with special needs may be moved to regular shelters or shelters for people with special needs, or they may shelter-in-place (i.e.,
remain in their personal homes or other residences, such as assisted living facilities, foster and group homes, and long-term care facilities). People with mobility or sensory disabilities often are moved to a temporary emergency location not specifically designed to accommodate their needs. Occupational therapy practitioners can—with within their skill level and arena of practice—modify and adapt these environments to promote safety and more independent function. Occupational therapy services may include supervising staff and volunteers at special-needs shelters, making home visits or telephone calls to those sheltering-in-place, and facilitating support groups designed to reduce anxiety and stress.

Occupational therapy practitioners also may provide support for displaced, confused adults and children until their caregivers can be identified and located. Occupational therapists can identify children who are having difficulty coping and address their mental health concerns, as well as provide guidance for their caregivers.

Occupational therapy practitioners can provide a variety of services to individuals and families who have evacuated their homes and workplaces and are living in emergency shelters or who are sheltering-in-place. People who are displaced from their homes and workplaces to emergency shelters face a variety of challenges. People of various cultures and ethnic backgrounds with different beliefs and habits often are forced to live in one large room with no privacy. Children are bored, a general sense of uneasiness pervades, and stress levels increase. Using a client-centered approach, occupational therapy practitioners can evaluate the needs of people in the shelter and provide appropriate services. Interventions might include providing structure in daily routines, identifying and emphasizing people’s strengths, encouraging creative expression of feelings, coordinating age-appropriate play for children, and providing opportunities for stress management (Newton, 2000).

In addition, occupational therapy practitioners with appropriate knowledge and skills who are part of a disaster response team can provide short-term, supportive mental health services to victims, families, first responders, and volunteers (AOTA, 2010c). This is referred to as psychological first aid (NIMH, 2008; Watson & Shalev, 2005) or mental health first aid and is provided only to those who seek the service. Mental health first aid can be defined as “help provided to a person developing a mental health problem or in a mental health crisis. The first aid is given until appropriate professional treatment is received or until the crisis resolves” (Kitchener & Jorm, 2007, p. 2). The goals of mental health first aid are to

- Prevent injury or death when a person is a danger to themselves or others,
- Protect survivors from further harm,
- Reduce distress,
- Prevent the mental health problem from developing into a more serious condition,
- Promote the recovery of positive mental health,
- Reduce physiological arousal,
- Provide comfort to the person coping with a mental health crisis,
- Facilitate reunion with loved ones, and
- Guide the person toward appropriate professional help (Kitchener & Jorm, 2007; NIMH, 2002).
The mental health first aid process generally consists of several components:
- Assessing risk of suicide or harm,
- Listening in an active empathic manner,
- Providing reassurance and information/education,
- Facilitating self-help strategies and access to community resources,
- Reducing secondary stressors, and
- Encouraging the person to seek appropriate professional help when needed (Kitchener & Jorm, 2007; Shalev, Tuval-Mashiach. & Hadar, 2004).

First responders, including firefighters, police, and emergency medical personnel, also may benefit from occupational therapy. These individuals work long hours under difficult circumstances and often are away from home. Occupational therapists can observe first responders and volunteers for signs of distress and can provide respite, psychological first aid, or other appropriate interventions (Newton, 2000).

Occupational therapy is based on the premise that engagement in occupations facilitates adaptation. Occupation can help disaster survivors reestablish their sense of control. Focused, constructive activity, such as helping others, moves people beyond shock and denial. This strategy is especially effective for survivors who are being disruptive. Engaging survivors as active participants in their ongoing survival and adjustment to change can help them regain their sense of mastery and overcome any sense of guilt from a perceived failure to prepare for the disaster or to protect their family. By engaging in play, vigorous physical activity, or valued leisure occupations, survivors can get a brief respite from recurring thoughts, worries, and concerns about the future.

**Occupational Therapy Contributions in Disaster Recovery**

Post-disaster recovery involves repair and rebuilding of property, reestablishment of public utilities, and restoration of disrupted social and economic activities, and routines. For example, the restoration of the school community provides age-appropriate occupational engagement for students (Hobfoll et al., 2007). According to the Council on School Health of the American Academy of Pediatrics (2008), “Although returning to the classroom does not ensure that children are ready to address learning tasks, evidence points to the restorative power of the educational routine in guiding children through emotional crises” (p. 898). Post-disaster recovery also includes efforts to reduce acute stress, foster resilience, re-establish roles and routines, and enhance the psychosocial well-being and the quality of life of the community members affected (Tierney et al., 2001).

Following disasters, many survivors experience acute stress reactions (see Table 1). Hobfoll et al. (2007) identified five essential elements to trauma intervention including: (1) promotion of sense of safety, (2) promotion of calming, (3) promotion of sense of self-efficacy and collective efficacy, (4) promotion of connectedness, and (5) promotion of hope. A sense of safety can be instilled by providing the facts of the current situation without the hyperbole of some media reports. Calming is required for the occupational performance of restorative sleep, which is commonly adversely affected. Occupational therapists can promote a sense of self-efficacy as
they help clients to problem-solve and successfully address disaster-related issues. It is imperative to facilitate connectedness to ensure social participation necessary for well-being. Finally, hope can be instilled by providing a realistic but noncatastrophic view of the future (Hobfoll et al., 2007).

Fostering resilience as well as psychological and social recovery are major goals in this stage of disaster. Strategies to facilitate resilience and psychological and social recovery include providing education on acute stress responses and coping skills training, fostering natural social supports, encouraging social interactions, facilitating spiritual support, and offering group and family interventions (AOTA, 2010b, 2010c; NIMH, 2002).

**Table 1. Common Acute Stress Reactions to Disaster**

<table>
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<tr>
<th>Emotional Effects</th>
<th>Cognitive Effects</th>
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<tbody>
<tr>
<td>Shock</td>
<td>Impaired concentration</td>
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<tr>
<td>Anger</td>
<td>Impaired decision-making ability</td>
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<tr>
<td>Despair</td>
<td>Memory impairment</td>
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<tr>
<td>Emotional numbing</td>
<td>Disbelief</td>
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<tr>
<td>Terror</td>
<td>Confusion</td>
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<tr>
<td>Guilt</td>
<td>Distortion</td>
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<tr>
<td>Grief or sadness</td>
<td>Decreased self-esteem</td>
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<tr>
<td>Irritability</td>
<td>Decreased self-efficacy</td>
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<tr>
<td>Helplessness</td>
<td>Self-blame</td>
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<tr>
<td>Loss of derived pleasure from regular activities</td>
<td>Intrusive thoughts and memories</td>
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<tr>
<td>Dissociation (e.g., perceptual experience seems “dreamlike,” “tunnel vision,” “spacey,” or “on automatic pilot”)</td>
<td>Worry</td>
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<td>Mood swings</td>
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<tr>
<th>Physical Effects</th>
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<tr>
<td>Fatigue</td>
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<tr>
<td>Insomnia</td>
</tr>
<tr>
<td>Sleep disturbance</td>
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<tr>
<td>Hyperarousal</td>
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<tr>
<td>Somatic complaints</td>
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<tr>
<td>Impaired immune response</td>
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<tr>
<td>Headaches</td>
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<td>Gastrointestinal problems</td>
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<td>Decreased appetite</td>
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<td>Decreased libido</td>
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<td>Startle response</td>
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<tr>
<th>Interpersonal Effects</th>
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<tr>
<td>Alienation</td>
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<tr>
<td>Social withdrawal</td>
</tr>
<tr>
<td>Increased conflict within relationships</td>
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<tr>
<td>Vocational impairment</td>
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<td>School impairment</td>
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The profession of occupational therapy has long recognized the importance of roles, habits, and routines to occupational engagement (American Occupational Therapy Foundation [AOTF], 2010). Disasters can seriously disrupt role engagement and the habits and routines that sustain them. Roles help give people an identity and a sense of self, as well as identify the responsibilities associated with that identity (Deeny & McFetridge, 2005; Kielhofner, Forsyth, & Barrett, 2003). After a disaster, roles such as student, worker, leisure participant, or others may be lost. In the case of displacement from a person’s home and community, some roles, like those of family member or friend, must be maintained from a distance, or worse, relinquished. Other roles may need to be expanded, such as homeowner, as insurance issues will require significant time and attention. Often, changes in context require the adoption of new roles, such as volunteer, renter, or home remodeler. Occupational therapy practitioners are adept at helping clients successfully negotiate periods of transition and can help clients adapt to role changes dictated by the disaster.

Occupation and activity can help clients cope with traumatic stress and meet survival needs. Occupational engagement reduces the intensity of stressful events and helps reestablish a sense of mastery in a situation in which a person feels a loss of control. The military has long used occupational therapy to help soldiers overcome occupational dysfunction due to the stress of war (Ellsworth, Laedtke, & McPhee, 1993; Laedtke, 1996), to support their role identity, and to restore their confidence in their ability to function (Gerardi, 1996, 1999; Gerardi & Newton, 2004). Participation in occupation facilitates restoration of adaptive habits and routines, supports a person’s sense of identity, and helps establish a spiritual connection in the disaster situation (McColl, 2002). As part of the intervention team, occupational therapy practitioners can help clients develop coping skills to deal with the aftereffects of their experience. Additionally, through engagement in occupation, disaster survivors can restructure their habits and routines to cope more effectively with stress and anxiety, to enhance their sense of mastery over their environment, and to participate in their valued life roles.

Some survivors may experience lasting psychological effects from the traumatic stress of their experience. These posttraumatic stress symptoms may be severe enough to manifest themselves as depression or an anxiety disorder such as posttraumatic stress disorder (PTSD). Characteristic of PTSD is persistent re-experiencing of the event (e.g., in nightmares and flashbacks), avoidance of reminders of the trauma and numbing of emotions (e.g., difficulty recalling aspects of the trauma and detachment from others), and heightened physiological arousal (e.g., insomnia, irritability, exaggerated startle response), all lasting more than one month (American Psychiatric Association, 1994). In addition—and of primary concern to the occupational therapy practitioner—a person with PTSD may experience significant occupational dysfunction. Providing occupational therapy in a group format offers a supportive environment and can enhance function and provide a renewed sense of self-efficacy (Ziv & Roitman, 2008).

For persons diagnosed with PTSD, occupation can be used to recover and enhance skills required in daily life roles. Such interventions may focus on ADLs to enhance independent living; on coping skills (e.g., relaxation, biofeedback) to deal with stress, anxiety, and physiological arousal; and on socialization skills to decrease emotional and social withdrawal and to increase socialization (Davis & Kutter, 1998; Froelich, 1992; Rosenfeld, 1982, 1989; Short-Degraff & Engelman, 1992). Expressive media can be used to help clients re-experience their trauma in a
safe supportive environment. This enables them to explore and discover how they have been affected by the event and to practice skills to deal more effectively with their physiological and emotional responses (Davis, 1999; Froelich, 1992; Morgan & Johnson, 1995; Short-Degraff & Engelman, 1992).

**Contributions of Occupational Therapy Organizations in Times of Disaster**

The AOTF, AOTA, and the World Federation of Occupational Therapists (WFOT) have been involved in disaster work. In 2002, following the terrorist attacks of 9/11, the AOTF established the Task Force on Occupation in Societal Crises. This group, made up of civilian and military personnel and occupational therapists from Canada and the United States, worked in collaboration with AOTA’s Commission on Practice to write the first version of this concept paper (AOTA, 2006b).

AOTA has been responsive after hurricanes Katrina, Rita, and Ike, as well as other disasters. In large-scale disasters, where citizens of affected communities are simply struggling to survive, it is imperative that entities outside the immediate disaster zone provide assistance to ensure safe living arrangements, mental health support, job opportunities, and continued curriculum or equal educational opportunities. Local and regional, trained and networked occupational therapy practitioners are best prepared to help and to serve as conduits of information regarding needs to professional associations at the state, national, and international level. However, before disasters occur, professional associations can provide guidance through official documents and other training materials. For example, in response to the 2004 Indian Ocean Tsunami, WFOT produced a Disaster Preparedness and Response information package and is supporting the development of a textbook on the same topic (WFOT, n.d.). AOTA also has produced disaster-related materials; links to these resources and those of the WFOT appear in Table 2. While professional associations have a role in educating members and society about the potential role of occupational therapy, ultimately it is individual occupational therapy practitioners who need to take the initiative to be trained and ready to serve if disaster occurs in their institution, community, or region (Stone, 2006).

**Occupational Justice, Ethics, and Research in Disaster Preparedness, Response, and Recovery**

The term *occupational justice* conveys the profession’s commitment to populations and individuals in need as well as the strong belief that access to occupation is a right and a necessity for health and quality of life (AOTA, 2008; Townsend & Wilcock, 2004). Disaster survivors often are vulnerable and in need of the services of occupational therapy practitioners. Stone (2006) reports that the best method to provide recovery services is in the community (when possible) by local, pre-trained providers who are part of an established network.

To be able to assist in an ethical manner, occupational therapy practitioners must
- Be keenly aware of their motivations to engage in this type of work,
- Have an individual/family disaster plan in place,
Seek out training and secure a position from an authorized agency,
Be competent in the tasks and services they provide,
Not expect special privileges, and
Not unduly take advantage of the experience or capitalize on others’ misfortune.

Communities affected by disaster can provide tremendous opportunities for research (Morris, 2008). However, special care must be taken to ensure research is done in an ethical and compassionate way. A group of social scientists met after Hurricane Katrina and established eight criteria to guide research on the disaster (Gill et al., 2007). While all eight criteria are relevant to occupational therapy research, the following four resonate most strongly with the *Occupational Therapy Code of Ethics and Ethics Standards* (AOTA, 2010a) and occupational justice:

- “Reducing vulnerability of populations to disaster, promoting the sustainability of human and ecological systems, and enhancing the resiliency of communities” (p. 790).
- “Facilitating recovery of individuals and communities” (p. 791).
- “Enhancing stakeholder participation, collaboration, and empowerment” (p. 792).
- “Developing new knowledge of understudied disaster-related issues” (p. 792).

**Conclusion**

Occupational therapy practitioners can have a significant role in disaster preparedness, response, and recovery. For example, in preparation for disasters, occupational therapy practitioners can

- Participate in facility-level and community-wide planning efforts,
- Design special-needs shelters and train staff and volunteers, and
- Assist businesses and employers in developing plans for evacuating employees with disabilities.

Occupational therapy has much to offer individuals, families, organizations, institutions, and communities affected by disaster. The profession’s holistic approach and its focus on occupational engagement and adaptation constitute its unique contribution to disaster management. During the disaster response, occupational therapy practitioners can

- Provide supportive mental health services to victims and their families;
- Provide supportive mental health services to first responders, such as police, firefighters, and military personnel;
- Manage special-needs shelters;
- Provide supportive services by telephone or visits to those sheltering-in-place;
- Provide occupational interventions in shelters; and
- Facilitate psychological and educational support groups to decrease anxiety and stress.

Throughout the disaster recovery phase, occupational therapy practitioners can provide occupation-based and mental health services for persons with acute stress reactions and PTSD. Interventions must be designed to be meaningful and purposeful to those engaged in them, and they must support the individual, family, community, or agency in responding to the unique characteristics of the disaster.
Occupational therapy practitioners can use their professional expertise and the power of occupational engagement to restore control, order, and quality of life and to normalize lives in crisis when individuals, families, institutions, and communities are disrupted by natural or technological disasters. However, to be effective in this arena, occupational therapy practitioners must

- Define and establish their role in disaster preparedness, response, and recovery (McDaniel, 1960);
- Be aware of existing hospital, institutional, work site, and community disaster plans;
- Be knowledgeable about how national, state, and local governments and private agencies involved in disaster management are organized and how to gain entry into these systems;
- Monitor the literature for evidence-based work on the efficacy of various approaches such as psychological/mental health first aid and other approaches;
- Develop skills and train for their role in disaster response and recovery; and
- Be personally and professionally prepared to respond effectively to disaster situations (see Table 2 for resources).

A quote from author C. S. Lewis written for another time remains relevant today as occupational therapy practitioners think about their response to disaster, both as private individuals and as professionals. When disaster comes, let it find us doing sensible and human things—praying, working, teaching, reading, listening to music, bathing the children, playing tennis, chatting to our friends over a pint and a game of darts …. (Lewis, 1986, pp. 73–74)

Table 2. Disaster Resources

<table>
<thead>
<tr>
<th>Title</th>
<th>Link</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organization/Website</td>
<td>Web Address</td>
<td>Description</td>
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<tr>
<td>----------------------</td>
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<tr>
<td>Center for an Accessible Society, “Disaster Mitigation for Persons With Disabilities”</td>
<td><a href="http://www.accessiblesociety.org/topics/independentliving/disasterprep.htm">www.accessiblesociety.org/topics/independentliving/disasterprep.htm</a></td>
<td>Web site of resources</td>
</tr>
<tr>
<td>Inclusive Preparedness Center, “Emergency Preparedness for People With Disabilities and Other Vulnerable Populations”</td>
<td><a href="http://www.inclusivepreparedness.org/">http://www.inclusivepreparedness.org/</a></td>
<td>Web site focused on ensuring that all people are included in emergency planning, response, and recovery from natural and technological disasters</td>
</tr>
<tr>
<td>International Critical Incident Stress Foundation</td>
<td><a href="http://www.icisf.org/">www.icisf.org/</a></td>
<td>Web site of nonprofit, open-membership foundation dedicated to prevention and mitigation of disabling stress through provision of education, training, and support services for all emergency medical service professions; continuing education and training in emergency mental health services; and consultation in establishment of crisis and disaster response programs for varied organizations and communities worldwide</td>
</tr>
<tr>
<td>National Voluntary Organizations Active in Disaster</td>
<td><a href="http://www.nvoad.org">http://www.nvoad.org</a></td>
<td>A coalition of nonprofit organizations sharing knowledge and resources regarding disaster preparation, response, and recovery to help disaster survivors and their communities</td>
</tr>
<tr>
<td>Resource</td>
<td>Contact Information</td>
<td>Description</td>
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<tr>
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</tr>
<tr>
<td>World Federation of Occupational Therapists, <em>Disaster Preparedness and Response Information Package</em></td>
<td><a href="https://www.wfot.org/wfotshop/shopexd.asp?id=71">https://www.wfot.org/wfotshop/shopexd.asp?id=71</a></td>
<td>Educational CD-ROM available for purchase or free to those working in disaster relief and to countries without the financial resources to purchase</td>
</tr>
</tbody>
</table>
References


**Authors**

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The Commission on Practice
Janet V. DeLany, DEd, OTR/L, FAOTA, Chairperson

*Adopted by the Representative Assembly Coordinating Council (RACC) for the Representative Assembly.*

*Revised by the Commission on Practice 2011*

This revision replaces the 2005 document *The Role of Occupational Therapy in Disaster Preparedness, Response, and Recovery: A Concept Paper* (previously published and copyrighted in 2006 by the American Occupational Therapy Association in the *American Journal of Occupational Therapy, 60*, 642-649).

To be published and copyrighted in 2011 by the American Occupational Therapy Association in the *American Journal of Occupational Therapy, 65*(6 Suppl.)