Physical Therapists' Vital Role in Disaster Management

Physical therapists have played important roles following many recent disasters. Too often, though, their skills are not fully used. Through planning, education, and involvement, that can change.

By Sheri Waldrop, RN, BSN

The disaster management plan for the Edmond Regional Medical Center in Edmond, Oklahoma, in 1995 called for then-physical therapy student Mark White to "sweep for bombs and transport betadine and bandages to the scene," White recalls. Then, one day, a bomb threat was phoned in. White--who had only a vague description of what a bomb might look like and little training on how to conduct a search--was dispatched on bomb detail.

When the Murrah Building in Oklahoma City was destroyed by terrorists on April 19, 1995, killing 169 and injuring hundreds more, White was assigned to "moribund care"-transport of the dead and dying. "This didn't seem like a good use of my abilities," recalls White, now a physical therapist (PT), an orthopedic certified specialist, and president and director of rehabilitation at United Therapeutics Corporation in Oklahoma City. He suspected the assignments for PTs stemmed from a lack of understanding about the knowledge, training, and skills that PTs possess. "They didn't know that we could manage wound care, burn care, and other activities that we perform every day," he says.

Following the Murrah Building bombing, many PTs did provide a range of care to the injured. Robert Eskew, PT, MS, PCS--a pediatric clinical specialist at the Jim Thorpe Rehabilitation Hospital in Oklahoma City-describes the experience of some physical therapists: "We performed triage, assessed vital signs, checked lacerations, performed wound debridement, and assessed soft tissue and bony injuries. Afterwards, we also set up a temporary clinic downtown, where the rescue workers from the fire department, the police department, the FBI, and the Red Cross could come."

He recalls, "There were six physicians in the hospital during the disaster, and we helped by doing evaluations of soft tissue injuries and sprains, the types of things I was equipped to do. By using my skills, I was able to free up the physicians to do what they were skilled at, such as sewing up lacerations and working on the more involved trauma. By working together, we could see more patients."

PTs in other disaster situations have had similar experiences. Hope Laznick, PT, is assistant chief of physical therapy at the William Randolph Hearst Burn Unit at New York Presbyterian Hospital, which received patients after the September 11 attacks on the World Trade Center. She remembers the vital role that physical therapists played during the tense hours after the twin towers collapsed. "We filled a role both at the site and in the hospital. In the field, PTs were helping with wound care and doing musculoskeletal treatments of the rescue workers who sustained injuries from their rescue work. In

Categorizing Disasters and Emergencies

Disasters and emergencies can be external or internal. Per Schenck, emergency preparedness coordinator for Stanford Medical Center, explains, "We often think of disaster as a terrorist attack or outside threat. But the most common 'disasters' come from within, when power failures occur or equipment fails. Any PT department should be prepared to deal with those as well."

In a guide to disaster planning, BOMA (formerly the Building Owners and Managers Association International) lists a variety of emergencies, ranging from terrorism, floods, and earthquakes to elevator failures, water leaks, telecommunications failures, and heating/cooling system failures.4 Further, BOMA warns of security threats: "While bomb threats, crime, terrorism, and civil disturbances are the emergencies most commonly considered security-related, a security breach could just as likely involve fire (arson), vehicular incidents, building system interruption, or hazardous materials incidents. By addressing security planning issues and other emergency planning issues at the same time, it is possible to eliminate some unnecessary overlap and repetition. This should lead to an overall emergency plan that is more streamlined and more complete."

According to Mark Stafford, director of disaster services for the Fort Worth, Texas, chapter of the American Red Cross, disasters are either foreseen (and can be prepared for ahead of time) or unforeseen. Foreseen disasters include hurricanes, floods, and

the hospital burn unit, we had a crucial role performing wound care, and the nurses were very grateful. It was instinctive to us to step in and do what needed doing, using our assessment skills and professional abilities."

In fact, the September 11 attacks spurred White and Eskew to let those outside the PT community know the full range of abilities that physical therapists possess. They wrote a draft "Disaster Management Plan for Physical Therapy Services and Skills" and have been working with others--including PTs in New York and Washington, DC--to make sure that physical therapists are not overlooked when disaster recovery plans are developed.

tornadoes. By contrast, the unforeseen cannot be specifically planned for, and preparations will be more challenging. Your department should have written plans for both types of emergency situation.

Even foreseen disasters can have unforeseen consequences. For instance, Memorial Hermann Hospital, part of the Texas Medical Center, had a disaster plan prior to Hurricane Allison. Backup power was to be supplied by an emergency generator positioned above predicted flood levels. The generator, in fact, was not flooded. However, the electrical switches for the generator were in the basement, which did flood, thereby disabling the generators.

Barriers to PT Involvement

Eskew believes that many hospitals hesitate to use physical therapists during disaster situations because their decision-makers and staff aren't sure how to best do so. "In the disaster management area, physical therapists don't have either a good reputation or a bad reputation; we have no reputation. People don't think of PTs or their role in this setting."

Others echo Eskew's belief. For example, Mark Stafford, director of disaster services for the Fort Worth, Texas, chapter of the American Red Cross, says that until recently he had not considered the issue of PTs in disaster situations: "At a conference, a PT asked me about her role if disaster occurs. I really hadn't thought of physical therapists in this setting before. I mentioned the potential of helping rescue personnel who become overtired in the field. But I also believe physical therapists could play a larger part."

White suggests another reason for the limited role assigned to some PTs. "Physical therapists in disaster situations tend to undervalue their own skills. As physical therapists, we already have the skill sets for working in a disaster situation and we need to educate our own profession about this fact. If people want to help out, all they have to do is their regular job--what they already know and have been doing-just in a new context. Physicians go to the scene to provide the care that they were trained to do. As physical therapists, we can do the same," White says.

In some emergency situations, a state's laws restricting direct access also may serve as a barrier to involvement by PTs. In the long term, the movement toward direct access will help ease this problem. However, PTs must be aware of what the law permits--and does not permit--before providing services.

The Military Perspective

While physical therapists in civilian settings struggle at times to define their roles during disaster, those in the military may have a greater ability to exercise their professional skills. LTC Josef H Moore, PT, PhD, ATC, SCS, is a commissioned officer and director of the US Military-Baylor University Sports Medicine PT Postprofessional Doctoral Program at the United States Military Academy, and chief in the Physical Therapy Department at Keller Army Community Hospital in West Point, New York. Moore says that the military uses the skills of physical therapists as a matter of course during operations that include disaster preparedness. "In a general sense, the US Army physical therapists assigned to fixed Army hospitals around the world operate under locally derived Emergency Preparedness Plans (EPPs) for all manmade or natural disasters. Depending on location, staffing, and facility size, Army physical therapists will find themselves performing triage, managing the minimal care stations, or assisting orthopedic surgeons in the orthopedic clinic or operating room."

He notes that during operations such as those in Afghanistan and Bosnia, physical therapists play more than an "ancillary" role. "Physical therapists assume a primary role in

For More Information

Presented below is a brief listing of additional information sources on emergency and disaster management plans.

- American Hospital Association Chemical and Bioterrorism Preparedness Checklist. Available online at http://www.aha.org/Emergency/Content/MaAtChecklistB1003.doc. Accessed February 27, 2002.
- Eskew, Bob, PT, MS, PCS and White, Mark, PT, OCS. Disaster Management Plan for Physical Therapy Services and Skills. Published by Oklahoma Physical Therapy Association.
- Developing Practical Emergency Management Education Programs. Joint Commission Perspectives, 2001; 21(12):3-11.
- Federal Emergency Management Agency Online Library, Preparedness, Training and Exercises Room. http://www.fema.gov/library/lib07.htm. Accessed April 8, 2002.
- Office of Excellence in Disaster Management & Humanitarian Assistance. http://coe-dmha.org/. Accessed April 8, 2002.
- Indiana University School of Law-Bloomington. http://www.law.indiana.edu/

the triage and management of non-surgical casualties." According to Moore, physical therapists in the military often exercise an expanded role compared with their civilian counterparts. "Our role in managing acute non-surgical orthopedic trauma and wound debridement without physician referral has been valued in Army medicine since the early years of the Vietnam War. We're fortunate in that we assume these same roles on a daily basis within our fixed facilities, enabling us to perfect and further develop our competencies."

webinit/disaster/ index.html. Accessed April 8, 2002.

- DRI International (formerly the Disaster Recovery Institute). http://www.dr.org/general.html. Accessed April 8, 2002.
- BOMA International Emergency Resource Center. http://www.boma.org/emergency/. Accessed April 8, 2002.

Moore believes one reason for this expanded role of military PTs is that their collegial role is less hindered by professional territoriality. He also thinks education is vital to increasing understanding of the role of the physical therapist. "We need to stop assuming everyone understands and appreciates what we do. We need to develop a better professional marketing strategy to educate medical professionals and the community at large that we're more than just an ancillary 'pseudo-scientific' rehabilitation profession, waiting for referrals."

Developing a Disaster Management Plan
Many facilities are required to have emergency plans. For example:

- Regulations require all federal agencies to develop an Occupant Emergency Plan. This applies to both government-owned and leased property.[1]
- The Occupational Safety and Health Administration (OSHA) requires emergency action plans for many workplaces with more than 10 employees.[2]
- The Joint Commission on Accreditation of Healthcare Organizations (JCAHO) has standards addressing emergency preparedness.[3]
- The Americans with Disabilities Act (ADA), which requires that any policies and procedures do not discriminate on the basis of disability, extends beyond a building's employees to include visitors, clients, and customers with disabilities.[4]
- State or local jurisdictions often require buildings of a certain size or use prepare an emergency plan.

Facilities interested in developing a disaster management plan have many good resources available in addition to White and Eskew's "Disaster Management Plan for Physical Therapy Services and Skills." (See sidebar "For More Information.") Per Schenck, the emergency preparedness coordinator for Stanford Medical Center, recommends the Hospital Emergency Incident Command Services (HEICS) manual (available online at the California Emergency Medical Services Authority's Web site at www.emsa.ca.gov). He calls it "a 'tool box' filled with useful items. Your department should pick out the ones that are applicable to them."

Local resources include police and fire departments, which may have schematics for developing a departmental disaster plan. Stafford suggests contacting the local emergency management directors for the Red Cross and Federal Emergency Management Agency (FEMA), adding, "You will want to build relationships with them anyway, so that you will know who to contact if disaster strikes."

PTs who work in a hospital setting may want to play an active role in developing a disaster plan there. Moore says, "As a highly respected senior Army physical therapist recently told me, 'Until we're sitting at the table where decisions are made, we'll continue to allow others to define our roles and responsibilities.'"

Here are some important points to consider when creating or adding to any disaster preparedness plan:

Communication Is Critical
Disasters may occur outside or within a facility. (See sidebar "Categorizing Disasters and Emergencies.") Sometimes, as in the case of hurricanes, their effects may be both external and internal. Therefore, a plan must address communications both within a facility and between a facility and the community it serves. This includes having backup communications equipment, in case phone lines go down, and an organized method of contacting people. Stafford suggests, "Know the communications setup and what the vulnerabilities of your facility would be in the event a disaster occurs."

Claire Sweatt, PT, NCS, manager of physical therapy and occupational therapy at The Methodist Hospital in Houston, experienced this firsthand. Hurricane Allison hit Houston in June 2001, dumping 26 inches of rain in a 6-hour period. "It was the middle of the night when the flooding occurred," she recalls, "and we lost everything. The electricity, even some of the backup generator switches in the basements shorted out, and the telephone lines went down."

Within the hospital, health care professionals began communicating with each other with notes and messages posted on bulletin boards and walls.

Another important aspect of communication is letting the media know where people can go for help. White says, "This means contacting the Red Cross, FEMA, and other agencies with this information."

Determine Critical Services
During a disaster situation, most departments will need to prioritize their services, and deliver only those that are critical. Delivering critical services means having well-defined objectives for your department, with the roles of staff members outlined ahead of time. White notes, "It's important to identify your key personnel and their roles in your disaster plan. Understand what the objectives of the disaster plan are: care for victims and maintaining functionality in the rescue workers."

This may require on-the-spot changes to an emergency plan. For example, after the flooding from Hurricane Allison cut the power to Memorial Hermann Hospital, part of the Texas Medical Center, patients had to be evacuated. The disaster plan had called for removing the non-ambulatory patients by dragging them in blankets or carrying them on the backs of hospital staff. In practice, though, this proved to be very difficult and many patients objected. Instead, most were carried out in wheelchairs-a process that was more efficient for the PTs and more acceptable to the patients.

Laznick found, during the adrenaline-charged atmosphere surrounding the collapse of the World Trade Center, that the staff at her hospital naturally fell into a team pattern when delivering critical services to the influx of patients. "We helped transport existing patients out of the burn unit into the step-down unit to open up beds for new patients. This meant working as a team with the nurses and doctors to triage patients already in the unit."

In a disaster, emotions are high and confusion occurs easily, so it becomes especially important to have a clear chain of command. A vital part of any disaster management plan is precise definition of who reports to whom. For many physical therapists, this will be a department head or manager. Laznick recalls the crucial steps she took to organize her department and mobilize resources during the hours after the September 11 attacks: "I contacted vendors and got staff in; we spent hours on the phone getting supplies that we needed. Surgeries tripled those first days, and we needed increased staffing, supplies, and emotional support for the patients, families, and the staff as well."

Based on his military experience, Moore is acutely aware of the importance of knowing and planning for who is in charge during a disaster situation. "Clearly defined roles are especially important, as is knowing the location to report to, since communication is usually hampered or absent," he states.

Coordinate Resources
Disaster plans should outline a method to secure adequate personnel, equipment, and physical space to provide essential services following the crisis. This should include simple preparations that ensure access to these resources. Laznick suggests, "Have a list made up ahead of time: staff phone numbers to call and a vendor list for supplies."

Create a list of essential equipment for your department's "disaster kit": blankets, a battery-operated radio, flashlights, water, and a first-aid kit that can be stored in a safe area and checked from time to time. Sweatt remembers how important those items were after the flooding that destroyed the power supply to her hospital. "It was the middle of the night when the electricity went down. We were transporting patients and carrying supplies up and down stairs, because the elevators didn't work, in the pitch dark except for our flashlights."

If a plan calls for establishing a treatment area in the field, additional supplies will be needed for caring for victims and rescue workers. These can include ice packs, heating pads, an emergency generator, treatment tables, and blankets, to name a few items.

APTA's Disaster Response Plan

APTA has developed a draft Disaster Response Plan pursuant to an APTA Board of Directors' resolution passed in June 1995 (BOD 02-96-04). The intent is "to provide a model disaster plan to assist [APTA] members in mobilizing and providing disaster relief and assistance to augment the response efforts of the Federal government, State and local governments, and volunteer relief organizations in protecting public health and safety."

The plan says that state chapters of APTA, being "the best situated to assess the needs of the community and to determine appropriate responses during local and regional emergencies and disasters," will be "at the forefront of response and relief efforts." For example, the plan says that each chapter must be responsible for establishing contact with the emergency management bureau within its state (usually a division of the state's department of public health and safety), as well with relief organizations that provide disaster relief and assistance.

Regarding physical therapists, the plan says, "Members who volunteer to provide services

Eskew notes that location is important. "Our field clinic went up quickly. If I could do it again, though, I would have located our clinic area closer to where the rescue workers were. Those people worked long hours, pushing themselves, finally collapsing during their breaks. If the PT site is too far away, they won't want to walk over to it for what they might consider a minor injury."

should be organized and deployed where needed. Services should be coordinated through the State government's disaster bureau and local relief organizations."

For more information, go to http://www.apta.org /Pdfs/governance/ bod5_3_01.pdf.

Moore also notes that local APTA chapters can become a valuable resource. "Physical therapists who are involved in disasters should have a well-established point of contact at the APTA chapter so that we can develop an archive for these events."

Disaster Drills: Keeping Skills Ready
Disaster drills are an important facet of any disaster plan. They give staff a chance to practice the skills that they will use if a real disaster occurs, and they can help prevent chaos or confusion about where to report. A disaster drill can be an especially valuable learning aid if staff members are given feedback on their performance with suggestions for improvements.

Write It Down
A facility's plan should be written down and kept in an easily accessible location. The more specific the plan is, the more useful it will be if a disaster occurs. This departmental "disaster planning manual" should include important numbers and resources to call, and should describe the locations of equipment. The role of the physical therapist in a disaster situation is important. Include notes from those who have experiences to share.

Eskew says, "September 11th taught us that disasters do happen. When they do, physical therapists are needed."

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Sheri Waldrop, RN, BSN*, is a freelance writer.*

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1111 North Fairfax Street, Alexandria, VA 22314-1488
703/684-APTA (2782) * 800-999-2782 * 703/683-6748 (TDD)
703/684-7343 (fax)

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