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The Roles, Barriers, and Experiences of Physical and Occupational Therapists in Disaster Relief: Post-earthquake Haiti 2010

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Short Title: Therapists in Post-Disaster Haiti
ABSTRACT

The Roles, Barriers, and Experiences of Physical and Occupational Therapists in Disaster Relief: Post-earthquake Haiti 2010

Purpose: This manuscript describes the roles and experiences of therapists involved in disaster relief work in Haiti after the 2010 earthquake.

Methods: Two qualitative studies of rehabilitation providers’ experiences in post-disaster relief care are presented. Study 1 investigated the role of therapists (n=13). Study 2 explored the experiences of therapists (n=11) from a phenomenological perspective.

Results: Participants provided disaster relief through direct patient care, adaptive equipment sourcing and allocation, education and training, community outreach, and logistic or administrative duties. Barriers and challenges included: 1) Emotions: Ups and downs; 2) Challenges: Working at the edge of PT practice; 3) Education: Key to success and sustainability; 4) Lessons Learned: Social responsibility is why we go; and 5) Difficulty coming home: No one understands.

Conclusions: Common themes emerged across studies. Therapists play a key role in disaster relief situations. Data presented should encourage organizations to include therapists from early planning to implementation of relief services. Further studies are needed to evaluate the impact of rehabilitation interventions in disaster settings.

Key words: disaster relief, physical therapist, occupational therapist
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Introduction

The impact that disasters have on social, economic, political, environmental, and health status differs depending on location\(^1\), yet, similarities exist in terms of the health effects on persons with pre-existing and newly acquired disabilities. Disasters can leave a legacy of impairment and injury and have significant public health consequences. These consequences often result in the marginalization of vulnerable groups, such as persons with physical disabilities.\(^2\) The Haiti earthquake is an example that sheds light onto the delivery of rehabilitation services to this vulnerable group in a post-disaster setting.

In 2008 the number of persons with disabilities was estimated to be 10% of Haiti’s population\(^3\), or roughly 970,000 persons. The earthquake in January of 2010 claimed approximately 222,570 lives, left 300,572 injured, and 2,000 to 4,000 persons with new amputations.\(^4,5,6\) All together, the number of newly injured persons in addition to persons with existing disabilities reached over 1 million. The paucity of local rehabilitation workers meant that the needs of those with disabilities could not be met. Hence, rehabilitation providers from the United States and other countries joined medical relief teams in Haiti. Little is known about the roles that those providers played. As more rehabilitation professionals participate in global disaster relief efforts, there is a need for data that will guide recruitment, preparation, training, and operations in the field. The purpose of this manuscript is to combine findings from two separate studies exploring the roles and experiences of therapists during the relief efforts in Haiti. It is the aim that these findings will help to describe the current roles and experiences of therapists in disaster
relief, while gaining knowledge about how to better prepare future rehabilitation relief workers. For the purpose of this manuscript the term therapist refers to both physical (PT) and occupational (OT) therapists.

Reports from the Indian Ocean Tsunami (2004), the Pakistan earthquake (2005), Hurricane Katrina (2005), and the Haiti earthquake (2010) described similar challenges addressing the health needs of persons with disabilities, namely a lack of planning and preparedness, and service provision.\textsuperscript{2,7-9} Traditionally, non-governmental organizations (NGOs) providing disaster relief have not recruited therapists as part of their healthcare teams.\textsuperscript{10} However, since the Haitian earthquake, well-established humanitarian and disaster relief organizations are now beginning to pay special attention to these emerging priorities: 1) mainstream disaster plans that are inclusive of persons with disabilities and 2) providing specialized services for persons with pre-existing disabilities or new disabilities resulting from disaster.\textsuperscript{2,11} This paper will focus on the second priority.

A month after the Haiti earthquake the Pan American Health Organization noted that rehabilitation services “and especially physical therapy, are critical to prevent or minimize long-term disability due to earthquake injuries… because disabilities can cause significant economic and mental health problems for survivors in the long term.”\textsuperscript{12} (pg 6)

Furthermore, and consistent with reports from prior earthquakes\textsuperscript{7,13}, a review of medical charts from a field hospital in Port-au-Prince identified the following common diagnoses and surgical procedures: fractures and/or dislocations, orthopedic surgeries and amputations, wound infections and debridement, skin grafting, and head, face, and brain injuries.\textsuperscript{14} In non-disaster settings these injuries often require rehabilitation intervention for optimal outcomes.
Historically, the roles and experiences of rehabilitation professionals in disaster relief and humanitarian settings have been poorly described. Current literature is sparse and largely commentary or editorial in nature. In 2007, Harrison interviewed four physical therapists to explore and describe the roles they played in patient care and organization while providing disaster relief services. The participants suggested physical therapy roles could be multi-faceted and include triage and treatment of musculoskeletal, neuromuscular, integumentary, and cardiopulmonary issues in ways that might reduce the workload of physicians and allow them to care for more critical cases. These suggestions are in line with the US Public Health Service’s Office of Emergency Readiness Guide, the experiences of US military physical therapists working in combat zones, the World Health Organization’s Violence and Injury Prevention and Disability Department, and the gold standard Sphere Handbook, which incorporates physical rehabilitation services under recommendations for essential health services related to injury.

The clinical, environmental, and emotional situations encountered by relief workers can be severe. Neither the Harrison study nor the above documents describe the experiences or emotions of therapy providers. In fact, no studies have been carried out to explore the emotional and psychological experiences of rehabilitation providers.

The Haiti experience highlights the critical role of rehabilitation services in disaster settings. As physical rehabilitation becomes a mainstream service in disaster relief, medical rehabilitation and disaster management communities will benefit from information that can help guide decision-making. This manuscript contributes to what is known about the roles and experiences of therapists providing rehabilitation relief.
This study combines data from two qualitative studies to answer the following: Study 1) What were the roles of the physical and occupational therapists who engaged in disaster relief work following the 2010 earthquake in Haiti? and Study 2) What is the lived experience of physical therapists who engaged in disaster relief work following the 2010 earthquake in Haiti? This manuscript includes separate methods and results sections for each study, and a common discussion.

**Methods: Study 1**

Following Institutional Review Board approval, a list of potential participants who had traveled to Haiti to provide disaster relief was obtained from word-of-mouth communication with physical therapy colleagues. Additional participants were found via snowball recruitment from the initial contact list. An introductory email was sent to 62 potential participants. The email included: 1) a request to participate, 2) an informed consent document, 3) a link to a demographic questionnaire on SurveyMonkey™, 4) an interview availability and format request (phone or Skype™), and 5) an email address for correspondence with the researchers. After potential participants replied to the original recruiting email and completed the demographic questionnaire, the following inclusion criteria were utilized for subject selection: 1) served at least seven days in a disaster relief capacity in Haiti, and 2) held either a physical or occupational therapist license.

Participants were then scheduled for interviews which lasted 30-60 minutes and were completed via telephone or Skype™ between December 13, 2010 and January 8, 2011. The interviews (appendix A) were audio recorded and meticulous notes were taken highlighting relevant content as per qualitative data collection. The data were de-
identified prior to analysis to maintain participant confidentiality and limit researcher bias.

**Results: Study 1**

**Participants Study 1**

Participant demographic data analysis was completed based on information collected via the initial SurveyMonkey™ questionnaire. Thirteen therapists (1 male, 12 female) with a mean age of 44.6 years (range 28-59 years) participated in the study. Ten of the subjects were PTs, 2 were OTs, and one was dual licensed as a PT/OT. Five of the subjects were married, 5 were single, and 3 categorized themselves as “other.” Nine subjects resided in the United States and 4 outside of the United States. All participants worked as part of a larger healthcare team that included some or all of the following: physicians, nurses, prosthetists, local rehabilitation technicians, psychosocial workers, and translators.

**Findings Study 1**

The aggregated interview data were organized into 4 major categories and themes reported by all participants. These 4 themes included participants’ 1) duties, responsibilities, and clinical skills utilized in the field, 2) barriers to work, 3) professional scope of practice, and 4) suggestions for the future. Within each major theme subcategories emerged. A majority of participants (both PT and OT) agreed about each of the subcategories described below.

**Duties, Responsibilities, and Clinical Skills**

Participants’ primary duties and responsibilities were grouped into the following categories of work: direct patient care, adaptive equipment sourcing and allocation,
education and training, community outreach, and logistic or administrative duties. (Table 1) Clinical skills utilized included patient triage, differential diagnosis of musculoskeletal impairments and acute medical red flags, wound care, functional mobility training, amputation care, splinting and bracing, and adaptive equipment and wheelchair fitting. Participants were asked to: 1) recognize, splint, and move patients with fractures, 2) start intravenous lines, 3) provide care for burns, spinal cord injuries, and head trauma, 4) train local providers regarding equipment repairs, and 5) provide community follow-up and vocational rehabilitation. These duties, responsibilities, and clinical skills are listed in table 1.

Insert table 1 about here

Participants reported providing education and training for local healthcare workers, patients, and families. The education provided included topics related to respiratory care, recognition and prevention of signs and symptoms of pressure sores and deep vein thromboses, adaptive equipment fitting, mobility and transfer training, amputation care, family teaching and communication, range of motion, contracture prevention, scar massage, soft tissue mobilization, and activities of daily living training.

**Professional Scope of Practice**

Several study participants made comments related to providing care within and beyond the traditional scope of practice. Participants expressed that they were often asked to work within the scope of practice but at the periphery of what they perceived as their own comfort zone. Participants stated that each individual should know his or her personal limits. Participants shared:
You have to be very aware about staying within your scope of practice and basis. Just because we are not in the US and not limited by our practice act, it is important to stay within our realm.

Emergency training may be good, but know your limits… PTs don’t have to know everything.

[I] was taught by a doctor 3 times how to start an IV when cholera started for precautionary reasons…. [I] didn’t feel comfortable with this duty.

**Barriers to Work**

Therapists reported many barriers to fulfilling assignment duties (see table 2). Participants were challenged emotionally, had to maneuver a harsh environment with scarce resources, struggled with balancing respect for cultural customs and traditions with rehabilitation goals, and lastly, reflected on poor preparation prior to field assignment. Discharge planning was repeatedly described as an emotionally taxing responsibility since patients had lost their homes, jobs, and families. Additionally, many patients were discharged with little hope that they would have access to necessary follow-up care because of environmental factors such as blocked roads, inadequate transportation, and a severely limited number of healthcare facilities. These issues were further complicated by post-traumatic stress, fear, bereavement, loss of property, and the negative stigma attached to disability as these participants stated.

[We] discharged patients with tents and mattresses [because no one had homes left]… many were discharged to nothing. People who lived far away were not seen again.

Patients often had nowhere to go [shelter boxes] with no jobs. They were trained and we gave them sewing machines so they could sew and make money once they left… but there were no jobs.

Participants articulated issues that impacted their ability to carry out rehabilitation efforts. These issues included language barriers and varying levels of interpreter skill,
pain tolerance and management, religious beliefs, traditional family roles, and relief workers who had limited understanding and respect for local customs and traditions.

*I often saw a complete disregard for the way things were in Haiti. Lots of volunteers came in and tried to change things, which only caused more problems.*

*Haitians believe in religion and God was going to heal them...so they did not accept prognosis very well. It took away hope from the people.*

Another barrier was inadequate preparation and training for volunteer workers. Many participants reported a lack of preparation prior to their assignment and used word of mouth, email, and Facebook to fill in gaps in preparation by connecting with other therapists with disaster relief experience.

*Volunteers... couldn’t adjust and made things worse.*

*Insert table 2 about here*

**Suggestions for the Future**

The participants felt that future volunteers would benefit from being provided with accurate and detailed information about 1) environmental and living conditions (housing, availability of food, water, and electricity), 2) specific clinical skill sets needed, and 3) the physical and emotional challenges that might be faced. Participants noted the importance of resourcefulness, flexibility, culturally-appropriate decision-making, the ability to respect and adjust to native belief systems, and seeking and fostering local skills and opinions. They felt that the experience of providing post-disaster relief would be enhanced by having previous experience in disaster or resource-poor settings. In terms of
preparation prior to relief work, it was suggested that volunteers be trained in: emergency and first aid care, triage and differential diagnosis, treatment of injuries likely to be encountered in post-disaster settings, and the provision of patient and family education regarding the benefits of mobility and prevention of contractures and pressure sores. In terms of timing of arrival, participants felt that therapists could be part of relief teams as early as the first day after the disaster, as long as they were not a burden to the system.

*It was not helpful when people would just show up for short term help without a place to stay, did not know where they will be working, etc… it is more detrimental than helpful. Even though extra hands are helpful, they also take away from the productivity. This isn’t safe for those people who just show up.*

When asked about the future role of the rehabilitation relief worker, participants responded that therapists should be a part of the healthcare relief team, providing clinical care, education, and advocacy for disability and rehabilitation issues with an emphasis on training local workers. Participants also stated that therapists should take part in disaster relief planning and training to enhance the understanding of disaster management and healthcare relief organizations related to the potential benefits of therapist involvement. Improved awareness would enhance and optimize involvement, placement, and use of therapists.

**Methods: Study 2**

This project involved a phenomenological study focusing on the experiences and potential roles of physical therapists involved in disaster response work in Haiti. See figure 1 for details on the methods used. Phenomenology was the method used to answer the question because it allowed examination of the embodied phenomenon in question from the point of view of the physical therapists being studied, rather than from the
researchers’ perspectives or as physical therapists. Phenomenology is the study of the lifeworld with the purpose of describing the structure of an experience, and not to describe the characteristics of a group who have had the experience. Research carried out in this manner provides a deeper understanding of the nature or meaning of our everyday experiences.

Following Institutional Review Board approval, participants were recruited through postings on the Health Policy and Administration Global Health Special Interest Group Listerv for the American Physical Therapy Association, through email, and through professional contacts of the researcher (SK) with nongovernmental organizations involved in disaster relief work in Haiti. If volunteers met participation criteria: 1) licensed to practice physical therapy in their home country, and 2) had volunteered as a disaster relief therapist in Haiti after the 2010 earthquake they were included in the study. Participants could be male or female and had to have volunteered within the year following the earthquake. Those who responded to recruitment advertisements were then contacted via email to confirm that they met the inclusion criteria and to schedule an interview.

Interviews were conducted via phone, Skype™, or in person. The interviews (appendix B) were conducted by the researcher (SK) with a semi-structured format and were digitally recorded. All interviews were conducted between February 26, 2011 and April 10, 2011. Each participant was asked to develop a pseudonym to protect his or her identity. The interviewer asked each participant to recall his or her experience of serving as a physical therapist in Haiti and to describe that experience. All interviews were
transcribed and a phenomenological description of each participant’s experience was developed according to Giorgi. The description was then sent to the participant and formed the basis of a second interview which was also recorded and transcribed. The second interview served as a resonance round for determining credibility, trustworthiness, and member checking the data to insure that the researcher had interpreted the experience correctly. If there were any changes, they were noted. This process provided the vertical analysis of the data.

A horizontal analysis of the data was conducted across all the interviews according to Giorgi to determine common themes. A common description of the experience with themes emerged across all interviews. These common themes were shared with the original participants in this study. They were also shared with physical therapists who had volunteered in Haiti but who had not been participants in the original interviews. These therapists provided resonance round information to determine if the common description obtained also represented their experience. A final resonance round occurred as the researcher shared the common themes with 24 other health care providers who volunteered in Haiti after the earthquake. Please see table 3 for the professions of those participating in the resonance rounds for the common description of the experience of volunteering in Haiti. Please see figure 1 for a model of the research methods used.

Results: Study 2

Participants Study 2

Eleven physical therapists (1 male, 10 female) participated and were interviewed twice for this study. Participants were from the United States, Canada, Africa, and the
United Kingdom and represented a wide variety in lifeworld backgrounds linked together by the common experience of volunteering for disaster relief work in Haiti after the 2010 earthquake.

**Findings Study 2**

Five constituents or themes emerged from the data and included: 1) Emotions: Ups and downs; 2) Challenges: Working at the edge of PT practice; 3) Education: Key to success and sustainability; 4) Lessons Learned: Social responsibility is why we go; and 5) Difficulty coming home: No one understands. Appendix C presents a sample of quotes which support these themes.

The common experience of volunteering in Haiti included periods of fear and uncertainty, times of shock, and feelings of accomplishment. In order to cope with the many emotions, exchanging stories was a means of debriefing and helped participants avoid burnout. Lack of funding, language barriers, cultural differences, coping with the reality of the devastation, and adjusting to practicing at the edges of a physical therapist’s scope of practices were all challenges faced by physical therapists volunteering in Haiti. The physical therapists stated that educating others was the key to successful rehabilitation for their patients. Educating patients, families, other volunteers, and Haitian aides was a part of feeling successful and provided sustainability in practice. The participants agreed that social responsibility was the reason why they went to Haiti. They felt it was their responsibility to help others. Lessons learned included how to practice physical therapy creatively, gaining a new understanding of the Haitian culture, and the importance of physical therapy in disaster relief work. Participants and members of our resonance rounds had difficulty coming home to their everyday lives. They had difficulty
finding others who related to their experiences in Haiti. At home, complaints of patients seemed miniscule compared to the problems patients in Haiti faced. Participants also struggled with their inherent privileges.

Discussion

In both studies participants worked for a variety of organizations. The size of the organization, resources available, length of assignment, expertise support, and relationship with local health professionals also varied. Despite this, several relevant and consistent themes emerged in participant interviews across studies. First, participants described using similar skill sets and listed ideal skill sets for future rehabilitation relief workers after an earthquake. Clinical duties were similar amongst participants, although patterns of types of diagnosis were dependent on geographic factors. Second, although duties and responsibilities were diverse, including education, training, advocacy, and administrative tasks, most participants’ primary role was providing direct patient care in both studies. This may be due to sampling bias, or could demonstrate the difficult balance between meeting immediate patient needs and providing education and training to locals. Third, ethical issues came up regarding discharge status and follow-up care for patients regardless of organization or setting.

Several participants commented on the negative effects of a short length of stay for volunteers, however, there was no consensus on what “short length” means. One participant commented “at least a month and not a week,” but more data should guide such practices into the future. Participants in Study 2 reported that short stays were difficult in that physical therapists had to return home just after getting used to the new setting and routine.
Participants noted a desire for an international database to better coordinate rehabilitation relief efforts. The World Confederation of Physical Therapy (WCPT) recently created just such a tool, the “Database of Experts,” which can aid recruitment of therapists with disaster relief expertise. Therapists with disaster relief expertise may register as a specialist and relief and humanitarian organizations can then contact the WCPT in times of need. Communication with rehabilitation professionals and disaster relief organizations will be important to increase awareness and maximize use of the database.

Once the participants returned to their homes, individual reflection and a new way of looking at the world occurred. Participants had a difficult time finding others to share their experiences and reflections with because no one seemed to understand what the volunteers had been through. Many participants reflected on their new sense of privilege upon returning home. Often times this new-found sense of privilege turned into a lack of empathy for their patients at home. Another hardship many participants experienced when returning home was the sadness that came with saying goodbye to those with whom they worked in Haiti. The participants created new working relationships and made friends while in Haiti. Many participants also described the challenges of separating from new-found professional colleagues. Advocacy efforts such as networking opportunities and support groups might be helpful for those returning home.

There are three limitations to Study 1. First, it includes a sample of convenience, and responses may not represent all therapists who have participated in disaster relief efforts. Second, since each disaster poses different challenges, limiting the study to those participants who had provided disaster relief in Haiti may not provide data that would be
true for a disaster response in another area or type of disaster. The third limiting factor is the use of self-reported data.

There are also several limitations to Study 2. A sample of convenience was used and may not represent all physical therapists who have volunteered in Haiti. The resonance rounds built credibility with the physical therapist participants in this study and the physical therapists not included in the interviews but who participated in the resonance rounds suggested that the description obtained was indeed representative of the physical therapist participants who volunteered in Haiti. Although the sample is small, it appears to be credible and is an appropriate sample size for qualitative research. In terms of utilizing a sample of convenience, the information seems to be representative of the experience of disaster relief in Haiti across the physical therapist profession and other health care professions based on the responses obtained in the resonance rounds. While these findings resonated well with physical therapists and other health care professionals, they may not resonate with the experience of disaster relief work in specific settings other than the 2010 earthquake in Haiti. Additionally, participants were asked to recall events after they had returned home and had completed their re-entry back to their everyday lives. Looking back at an experience after a time of reflection may provide a different perspective than the initial emotional response to the experience and may have influenced the results of the study.

Despite the limitations discussed above, it appears that there are similar themes which emerged between the two studies described in this paper. Prior to these studies, limited research was available regarding the role of therapists in disaster response efforts.
This manuscript provides timely and important information that can be used to clarify and enhance the therapists’ roles in disaster relief efforts.

Additional mixed method studies are needed to complement this and other studies. As more therapists and rehabilitation professionals participate in global disaster relief efforts, data collection and analysis is critical to guide recruitment, training, and operations in the field. The epidemiology of disasters should be analyzed with a disability and rehabilitation lens to further quantify the need and type of staff required for certain disasters. Improved monitoring, surveillance, and evaluation of the needs of persons with disabilities and the provision of rehabilitation services are needed. Future quantitative studies should examine the effectiveness and financial cost of rehabilitation intervention following disasters. Future qualitative research may include: exploring the perceptions of other disaster relief team members about therapist roles, the sustainability of long-term rehabilitative care, and the effects of rehabilitation services on the social inclusion of persons with disabilities in the community. Further work in assisting relief workers in their re-entry process and easing the adjustment home may also be helpful.

Implications for future practice and policy development include strengthening partnerships amongst healthcare provider professional associations for therapists, orthotists, prosthetists, physical medicine and rehabilitation physicians, surgeons, and disability rights groups. Collaboratively and collectively, these groups can advocate for services to better address disability and rehabilitation issues within the humanitarian and disaster relief context.

When disasters occur in resource-poor settings, precarious healthcare systems and scarce rehabilitation infrastructure compound the challenges that persons with new and
pre-existing disabilities may encounter. The dearth of rehabilitation specialists in
developing regions of the world creates a scenario where it is critical that initiatives are
taken to include rehabilitation services in many aspects of disaster relief.

In conclusion, these studies indicate that therapists are an important component of
disaster relief teams. Since they have training that allows them to be flexible, while
providing triage skills, clinical care, patient and family education, and community
outreach, therapists can play a key role in ensuring long-term safety and prevention of
secondary complications. Data from these studies should encourage organizations to
include disability and rehabilitation issues from early planning to implementation of
relief services.
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Appendix A: Study 1, Interview Questions

Parts I and II: Participant asked to fill out prior to scheduled interview.

I. Demographics & profile information

1. Age
2. Gender
3. Profession
4. Marital Status
5. Country of Residence

II. Disaster Relief experience

1. Country and type of disaster (e.g. earthquake, man made, natural, etc)
2. Organization in-country:
3. Length of time / dates served:
   How did you get involved at this site’s disaster relief work? (i.e. specify social networks used, word of mouth, APTA website)

III. Interview Questions

REHABILITATION PROFESSIONAL

[Note to interviewer: The probes are to be used at interviewers’ discretion and are not required. Use probes when information has not been revealed or you would like more elaboration.]

1. When was the first introduction to your site for rehabilitation services? Please specify what kind: PT/OT/ST/O&P? [Probe: For example, did rehab staff arrive 0-3 days post-quake, 3 days to 1 month, 1-2 months, etc.?]

2. What was the geographic setting at your site? [Probe: For example was it rural or urban, and how far away from the city?]

3. What was the medical infrastructure and capacity for services at your site? [Probe: For example there were 2 MDs, 1 nurse, etc.; types of medical and social services available]

4. What was your primary job, goals, and responsibilities on-site?
   a. How was most of your time spent on-site, for example clinical, administrative, advocacy, research etc.? (Probe: Please elaborate on previous question and give examples of types of clinical cases, specific administrative duties, etc.)

5. What were primary barriers and facilitators to completing your duties on-site? (Probe: For example what emotional, environmental, human and material resources, and organizational aspects of your job provided support or challenges? Please elaborate.)

6. What rehabilitation and disability services did the local community you served need?
What services was your organization able to provide to meet these needs, and what gaps were left unmet?

7. What rehab-specific skills did you observe rehab staff using in the disaster relief setting? (Probe: For example these might include wound care, splinting, burn care, amputee, emergency triage, EMT etc.)
   a. What additional skills would you like to see a rehabilitation staff acquire for future disaster relief work?

8. In retrospect, what role do you foresee physical therapists and other rehabilitation staff fulfilling in disaster relief settings?
   a. At what time in the disaster relief process would the community benefit from including rehabilitation staff on disaster relief teams?
   b. Some persons advocate that physical therapists and other rehabilitation professionals should be on the ground in the acute relief phase, within the first days to weeks after disaster. What pros and cons do you foresee with this perspective?

9. In retrospect, what social networks would have helped you prepare and complete your assignment related to disability and rehabilitation issues?
   a. [Haiti only] For example, would a US-based Haiti Rehab Communication Network have been helpful prior to your departure if you served in Haiti?
   b. Were there effective communication and coordination channels to ensure that respective rehabilitation professionals were sent to the areas of greatest need? What were they?
   c. [Probe: Would a database, listserv, Facebook or twitter groups be helpful?]

10. Is there someone from your organization that was involved in initial disaster relief management, medical triaging, or rehabilitation work that we can contact for this study? If so, please provide their contact info (name, phone number, or email address).
Appendix B: Study 2, Interview Guide
Experiences of physical therapists participating in disaster relief work in Haiti

Interview I:
• Think of the time during your disaster relief work in Haiti. Tell us about that situation:
  - Why did you decide to participate in relief work in Haiti?
  - What preparation did you have?
  - Did you have similar clinical experiences in your home or previous country?
  - What significance has relief work in Haiti made to your practice of physical therapy?
  - What challenges did you experience while in Haiti?
  - What challenges did you experience after returning to your home country?
  - What barriers did you experience? Why?
  - What went well? Why?
  - What assistance did you need?
  - How has your life changed now that you are home?
  - Are there differences working with patients in Haiti versus the US?

Additional Prompts:
• I’m interested by what you just said. Can you tell me more about what you mean by “____?”
• That’s a phrase I haven’t heard you use yet. Can you tell me what that means?
• I want to make sure I understand you right. Can you give me an example?
• Do you recall what you meant . . . a time . . . etc?

Follow-up Interview Questions:
• What did you notice about my interpretation?
• How does my interpretation of your story fit or not fit your experience of being you in it?
• Should I change anything about my interpretation of your story? If so, what should I change?

*Questions are based on the dissertation work of Dr. Susan Klappa (2010).
Appendix C: Study 2, Participant Quotations

**Emotions: Ups and Downs**

Someone was abducted a few miles if not blocks from where we were. You know, they had the prisons break loose and thousands of criminals were free. So, yeah, I mean, I got to sleep behind a guarded wall, but these people are in tents, so it was very distressing and uneasy. (Jane, PT, USA)

I remember when the plane was about to land and I looked out the window and I saw the devastation and destruction of what the earthquake had done. I sort of got the feeling over me like, can I really do this? Can I really be here and help? This is now too real for me. And so, there was this moment of, wait a minute, do I need to get on a plane and go back? But, once the plane landed and we got out, I was like, this is going to be a great adventure and I’m going to help a lot of people. (Emma, PT, USA)

The thing that struck me as we got close to Port-au-Prince . . . there was tents, for miles and miles on the side of the road. Pictures cannot put into words those tent cities and what people were living in. It doesn’t matter how many Time magazines you look at . . . I was amazed [at] . . . the lack of housing. (Gabby, PT, USA)

You are going by these two or three story buildings that have just pancaked, and you know there are bodies still in there, so the air has this stench to it in some places more than others. So there was that, but in the midst of that you had people who were trying to sell their goods right outside this building that has collapsed. It was sort of like well, life still goes on. (Mercy Me, PT, USA)

It was an intense environment, so to debrief usually you would have to chat with friends. And you would chat about what you saw. And so it was important to get that off your chest because you would see things you had never seen before, the things you would be worried about . . . stuff that was just bizarre and, you would just talk. And you would let them listen to something and they would share something back from some of the stuff that they saw. And it was just a way to let off some steam. (Jayne, PT, USA)

It was altogether very sad and amazing, emotionally overwhelming, but great. I’m so glad I did it. It’s one of the best things I’ve done in my short life. (Tina, PT, USA)

It’s so hot and you’re just sweating. And there’s these all different smells of the country, you know, just certain odors that are from off the street or whatever that you just smell. And I know that even other places that I have been to, I pick up on the smells quite quickly. And so that’s just something that, all your senses are basically working when you’re there. You know, the sights the smells and ah, you know, you’re always, you’re being stimulated by so many things at once that um, if it’s your first time in that situation I’m sure it could be very overwhelming. (Emma, PT, USA)
Facing Challenges: Working at the Edge of PT Practice

The main barrier that I experienced was language. I mean, these people all have the same issues that we see here: weakness, gait abnormalities, balance disturbances . . . they had all of that. I had a . . . I needed an interpreter by my side to treat . . . to really do my job. Their issues were really no different than what we see here in terms of physical impairments . . . But, it was a little frustrating because I didn’t know what they were saying, and I wasn’t sure if they were explaining it right . . . because sometimes the patients would do something completely different than what I said. (Gabby, PT, USA)

But it was hard too, as far as documenting, ‘cause you get their sheets and it’s in French. It’s in Spanish. I think some of the PTs had a hard time because they were like ‘we need to be documenting like we do in the United States, we have standards and there is nothing here.’ The dossier is not in English, and they won’t understand anyways. (Jayne, PT, USA)

The lack of resources, trying to communicate with the doctors, and watching these patients who had injuries that could easily be dealt with here in the States and watching them potentially lose limbs or life . . . Even the poorest of poor here [in the US] still have more food than these people had. (Gabby, PT, USA)

The guy had been storing his insulin in a cooler because they didn’t have a refrigerator or anything on ice, and it was just like . . . who knows if he’s going to be able to get ice wherever he is . . . no wonder this guy just has so much problems controlling his blood sugar. (John, PT, USA)

I mean personally for me it could definitely be oh very, very overwhelming. So you had to take time to take everything in and just take a step back and you’re not here to necessarily to teach people or to provide the same care that you would provide in the States. But you’re here to help and provide a service in any way you can, and that service from day to day was different. I think taking that time to reflect on that was very helpful for me. Taking time to talk to difference people and sort of sit there and talking through things and expressing my emotions so they don’t get bottled up. Sometimes there would be patients that were very overwhelming . . . you needed to talk about it and reflect on it. (Emma, PT, USA)

Gait training was a little tricky, and sometimes we didn’t have the right equipment, or we didn’t have crutches or, we didn’t have shoes, yeah, you know unique stuff, [laughter] but you made it work the best that you could. (Jayne, PT, USA)

There were all kinds of different patients. You know, there were amputees, wounds, orthopedic, deficiency fractures, spinal cord injuries, malnutrition, and . . . hydrocephalus for children and we worked with almost every kind of disorder here. (Jayne, PT, USA)
You have to use all of your skills set as a therapist and not depend on the latest piece of equipment or product that is out there. You really gotta think ‘ok, I don’t have any tools here so what can I do to really help these patients?’ (Mercy Me, PT, USA)

It’s just something you’ve never seen before. It’s a tent filled with people lined up side by side by side. There is really no privacy. Their families are waiting beside them. And there is a clipboard for the patients. And they’re going to either just naming the patients, the diagnosis, and what’s going wrong with each one and you just can’t remember. And they go, here’s your patient. And you don’t remember anything that’s going on or what they said and then they just send you off to go work. You’re dehydrated and you can’t figure out what’s going on. And you’re scared. And then the second you wake up and you just start working. And then the third day, you know it’s like you’ve been there forever. And it’s a shock because it’s a different way of life. (Jayne, PT, USA)

So the physiotherapist she introduced me to all of these different patients and finally she said oh but we’re not actually seeing everyone. Now I am not actually sure who I am supposed to see because there wasn’t much in the way of communication and I am sure that varies from week to week depending on who the therapist was that handed over the case load. So most volunteers stay for one week and so after the previous therapist had left, I started to get worried so I thought I am going to go look up every one's charts and I found that there was almost no documentation. (Vanessa, PT, Canada)

**Education: Key to Success and Sustainability**

There was a PT that was working there who was strongly involved in doing lessons for those PT techs after hours and PT anatomy and going over a lot of different things with them . . . I had the chance to kind of play the managerial role in outpatient . . . But one of my responsibilities was to help continue that sort of training. So we came up with different ways to get these techs to learn anatomy. And so we would do dance anatomy and they would have to name the muscle that did that dance move. (Emma, PT, USA)

So a lot of the Haitian population had never seen [rehabilitation]. They figured that when you’re sick you’re sick and they would just lie in bed because they didn’t understand the active part of the healing process . . . It took quite a while for them to learn that because we had translators who would just [help] the patients out of bed because it was too hard for the patients to do it themselves. They didn’t want him to because they were sick . . . That was the belief initially. But then when they actually witnessed themselves and saw the power of rehab . . . it was amazing. (Jayne, PT, USA)

The thing that was really exciting or was a good model was that they had a few people they were training. I guess you would call them PT aides. And they would follow them and they would eventually get their own patients. (Jane, PT, USA)

Whatever it is we were doing, we were also trying to train the Haitian technicians how to do this. Um, Mind you, they’d been doing this for quite some time and really
what always quite receptive to us. But also trying to teach patient care. Not just how to take the bandage off and put a new one on. But how to really care for a patient. That was, that was my, that was um, an area that was a challenge. And so they would go on all day. (Paola Julia, PT, USA)

Teaching families was important. It took quite a while. It took quite a while for them to learn that because we had translators who would just let the patients onto the bed because it was too hard for the patients to do it themselves. They didn’t want him to because they were sick. You know, they were sick. That was the belief initially. But then when they actually witnessed themselves and saw the power of rehab. The power of PT and witnessed for themselves the power of rehab and be able to move again, it was amazing. (Jayne, PT, USA)

**Lessons Learned: Social Responsibility is Why We Go**
I think for myself I learned that doing this stuff you definitely get a lot more out of it than your patients do in some way[s]. And so yeah, you’re carrying them all back with you. (Emma, PT, USA)

I think this is knowledge that sometimes we forget that we have. We have a lot of knowledge. And it took coming to Haiti for me to realize what was not known and that they need help to really show me how much a PT is valuable . . . how much my position as the therapist was okay . . . So it’s just amazing how much knowledge we have. And I think sometimes you forget that no matter where you are practicing that we have so much knowledge to give . . . Haiti reminded me of that and how important social responsibility is. (Jayne, PT, USA)

I think I chose to come because I saw a need that was urgently requesting help and I had the time . . . We thought it would be something good that we could do. And it ended up changing my life. And it really ended up impacting what I thought about therapy. (Jayne, PT, USA)

You can never be fully prepared . . . You have to keep an open mind. Don’t judge. Don’t compare things to where you’re from because it’s just insulting to the people that are there. They don’t want to hear how things are so much better where you are or how things are so much harder where you are. You have to just go there and just take it all in and just observe before you start commenting . . . I think you also need to set yourself realistic goals. You can’t go in there and change things. Even if you go there for a year you won’t accomplish change. I think that’s a big thing. Haiti needs to change itself. You need to just go with the flow basically. (Margaret, PT, Scotland and South Africa)

The other thing is to try to understand the culture that you are going into. And not to put your own expectations on people uh without trying to understand them um. And to be sensitive of uh the people that you are working with. I would try to be gentle with the patients and ask them what they want to do . . . not to be the person from the US that’s trying to tell them what to do. (Mercy Me, PT, USA)

I felt like before I never really knew the term social responsibility, I never really
heard of it . . . I guess I think it’s how I see my responsibility to society and to bring back to others a selfless act.” (Margaret, PT, Scotland and South Africa)

Being [responsible] for another human being and trying to do something to make their life better if possible and support their life. That’s social responsibility to me. (Paola Julia)

I really feel that . . . we have a responsibility, not just as therapists but as someone who has much more than [they] deserve, to help those in need whether it be in this country or not. (Mercy Me, PT, USA)

We definitely all live in this world together and it is important, if not necessary, that we all take care of one another because we’re only really going to survive if we’re all working together and living in a healing way. I think life is unfair and unfortunately we’re really lucky in the US that we’re born here. I think because we were dealt cards that are a little bit better . . . it is our responsibility to help others. (Tina, PT, USA)

**Difficulty Coming Home: No One Understands**

It was really hard to come home . . . because at times I was like, I can’t lose it here, in front of these people . . . It was like . . . I will just deal with it later. (Jane, PT, USA)

Coming home was difficult . . . because no one knows what you have been through. (Margaret, PT, Scotland and South Africa)

It’s hard to talk to people because not too many people have gone to Haiti and lived there and done what I’ve done. So, it’s hard to find people to relate . . . If you want to sit down for an hour, I can tell you how Haiti was, but it’s not like – oh, it was good – it just doesn’t do it justice. (John, PT, USA)

Coming home was horrible. I actually cried on the plane because I felt so guilty . . . for being really happy to return to my family and to get back to a shower and nice bed . . . and to know that the people I’m leaving don’t have that opportunity. I felt really guilty for being so excited. (Meslene, PT, USA)

We are so blessed, and just incredibly, incredibly wealthy and [we have] resources . . . even the poor. And by Haitian standards, [the poor in our country] are wealthy. I hope I can always remember and be grateful for what we have, when I’m starting to complain or have a bad day. Because it’s nothing compared to what they have in Haiti, or what they don’t have in Haiti. (Gabby, PT, USA)

I lacked a little bit of empathy for my patients. I had a hard time when they were asking me for stuff that I didn’t feel they needed. They were not happy with the equipment that they received or the therapy that they received back home here. (Jayne, PT, USA)

It took a while to adapt to . . . Western way of life again . . . especially when you see how people live with nothing and you come back to the UK and healthcare is
absolutely free and people are complaining that . . . their free healthcare isn’t good enough. It’s . . . difficult coming home. (Margaret, PT, Scotland and South Africa)

It probably took me . . . about a month and a half to feel like I had the same passion for my work as before Haiti. (Meslene, PT, USA)

I was actually quite sad, I was sad to be leaving the Haitians that hadn’t left yet because I wanted to see them complete things . . . I was sad to leave [the other volunteers that had become such good friends]. (Margaret, PT, Scotland and South Africa)

I don’t separate well when I know I’m not going to see people again and they’ve touched my heart. It was like, one more hug, just one more hug and then I’ll say goodbye to you then. The people, the wonderful friends, acquaintances, people that touched my life and maybe so much that I touched theirs . . . you know I just miss them. (Paola Julia, PT, USA)
References


