The Role of the Physical Therapist in Pandemic Response

Physical therapists are an integral component of healthcare teams in a variety of settings (e.g., emergency departments, acute care settings, home health care, and outpatient settings). In hospitals (i.e., acute care and/or inpatient rehabilitation), they may help develop treatment plans, teach patients how to use exercise techniques, and provide hands-on manual therapy to help with healing and improve function. The COVID-19 pandemic significantly affected the way PTs were able to provide care, while the number of patients who needed both inpatient and outpatient physical therapy increased. ASPR TRACIE met with Lindsay Harmon-Matthews, PT, DPT, MPH, J.J. Kuczynski, PT, DPT, OCS, Anthony Ganim, PT, MPT, MBA, and Michael Martin, PT, MPT (The Ohio State University Wexner Medical Center and other affiliations) to learn more about their experiences caring for COVID-19 patients during and after hospitalization.

Lindsay Harmon-Matthews (LHM)

Before we discuss the role of physical therapists during the COVID-19 pandemic, I will give a brief overview of our job, areas of expertise, and training. Physical therapists are experts in movement science, who provide evaluation and interventions, and facilitate pain management, to help patients prevent or recover from injury, illness or disease, and to restore or improve function. We have advanced training and education in areas spanning from anatomy, physiology, kinesiology, and biomechanics, to pathology, pharmacology, radiology, and psychology. The current education level is at the doctorate level, although PTs in the workforce can also have bachelor’s and master’s degrees. We are licensed at the individual state level, where licensure describes our legal scope of practice. Physical therapist assistants are licensed healthcare providers who carry out plans of care under the supervision of licensed physical therapists.

The collaborative nature of the Physical Therapy profession makes the physical therapist well positioned to work with individuals, healthcare and public health communities. We do our jobs in a variety of settings and cover the entire continuum of care. According to U.S. Bureau of Labor Statistics, in 2019, at least 26% of physical therapists in the U.S. were employed by hospitals or health systems which can include acute care, long-term care, and outpatient clinics. Less traditional settings can include schools and working with athletic teams or in wellness facilities.

1https://www.bls.gov/oih/healthcare/physical-therapists.htm#tab-3
The American Physical Therapy Association recognizes formal specialization in a range of areas; we find the following to be particularly helpful during disasters and the COVID-19 pandemic: cardiovascular and pulmonary, geriatrics, neurology, orthopedics, and wound management.

Physical therapists can work in all phases of emergency management:

- **Planning:** we often work across the continuum of care with various care team members and community organizations; we are accustomed to looking at scenarios broadly and horizontally, as well as from the perspective of accessibility and mobility. We can be included in community exercises and planning (as movement and accessibility experts) with the local healthcare and response teams.

- **Response:** we can help people through the triage process, and we can quickly evaluate and intervene with patients who may need mobility or equipment assistance during a mass evacuation or displacement to shelter situation. We can also provide interventions to “free up” intensive care unit (ICU)/high acuity beds, ventilators, or other medical equipment (e.g., airway clearance assistance via breathing exercises and airway suctioning techniques and mobility interventions and patient education to help reduce length of stay).

- **Recovery:** we can address patient health conditions and injuries (e.g., musculoskeletal, spinal cord, traumatic brain, amputation, burns, and nerve injuries), facilitating the healing process.

J.J. Kuczynski (JK)

At the Ohio State University Wexner Medical Center (OSUWMC), all physical therapists across the continuum of care report to one leadership team. This allows for multi-setting innovation and quick changes in care pathways as needed and seamless communication during a patient’s journey.

Our medical center’s goals were to promote staff safety, minimize potential virus exposures, and improve hospital throughput and efficiency to boost capacity and accommodate rapidly increasing COVID-19 admissions. Our physical therapists helped meet these goals by:

- Reorganizing teams and caseloads to group COVID patient treatment sessions together at end of day (we did not treat immunocompromised patients directly after COVID patients).
- Cross training and rotating team members on COVID units to minimize workforce fatigue.
  - Staff on COVID units were among the limited group of health care personnel going into patient care rooms for direct patient contact at the onset of the pandemic (this highlighted the collaboration between PTs and nurses). PTs in these units were given the option to rotate in/out of the unit since the pool of ICU-trained clinicians was expanded as part of the overall response strategy.
- Allocating and using personnel based on surge staffing models that accounted for predicted variations and potential depletions in staffing due to quarantine and illness.
  - While the emphasis was to allocate personnel to areas of highest acuity needs, part of the overall response strategy was to increase the efficiency of clinical decision making using reliable and valid mobility screening tools. While this is best practice even outside of pandemic operations, it highlighted the importance of using such tools to establish common data points all staff could use in determining where PTs’ contributions would have the greatest impact in supporting patients to the next level of care.

OSUWMC’s Additional Physical Therapy Contributions in COVID-19 and other Disaster Response

- Physical therapy is represented in every level of the Hospital Incident Command Structure; we could pose questions and provide feedback regarding how changes may impact the patient experience and healthcare access across the continuum of care.
- Therapists serve as “dot connectors” in multifaceted response. Our involvement allowed us to plan ahead for how our interventions could help improve hospital throughput and capacity, and how virtual care delivery platforms could help engage patients across the continuum, maintaining continuity of care.
- Therapists work in COVID-19 testing locations and perform COVID-19 vaccinations.
• Enhancing patient prioritization and triage criteria to ensure we were helping the medical center reach discharge goals more quickly.
  » In this context, “triage” refers to early identification of patients whose length of stay and/or discharge destination can be positively impacted by therapy interventions. Focusing on delivering therapy services at an enhanced frequency and/or intensity to these patients can help reduce length of stay and promote safe discharge home.

We had to respond creatively to alter how we provide **inpatient care** that is traditionally provided in person, often with loved ones present, in a very interactive setting. Some of the changes we made have continued over the past year. These include:

• The prioritization of in-room treatment, but we also reallocated space in the lounge areas and increased the use of hallways and outdoor areas for patient care.
• The extension of staff shift hours to facilitate social distancing.
• Trying to discharge patients as early as possible, but not before we identify and address any barriers they may have.
• The use of telehealth and designated rooms for caregiver training prior to discharge.
• Regular communications with our Clinical Epidemiology Department to determine safest methods of care delivery.
• Routinely assessing patient’s ears for indications of pressure wounds from masks (which must be worn whenever staff are in the room or anytime patients are outside of room).

One priority of our team at OSUWMC was to promote safety, conserve PPE, and minimize potential virus exposures by limiting the number of people in outpatient settings. The State of Ohio mandated that healthcare facilities postpone elective procedures and prioritize essential services; the health system had to define what those terms meant. Our rehabilitation department also had to determine which patients to prioritize under the mandate; patients with more acute conditions were prioritized to receive physical therapy.

Overall, outpatient and elective orthopedic surgeries were temporarily postponed and reduced in the Spring of 2020. This somewhat reduced the demand of outpatient orthopedic physical therapy for a short time. However, the cross training provided in physical therapy education allowed for the transition of those orthopedic physical therapists to other settings and teams and to continue to use their skillset in redeployment situations.

**Anthony Ganim (AG)**

Regarding **outpatient therapy**, those who have been to a physical therapy clinic know that we are not known for physical distancing. Even our treatment tables were not six feet apart. We had to change the way we operated in our clinics, including asking patients not to arrive early, implementing stricter cleaning protocols, and modifying our waiting areas. When we began to consider moving some patients to a virtual platform, we had to consider not just the acuity of the patient, but also to consider the risk of postponing their in-person care. Then we had to consider the patient themselves and their ability to communicate with us either via telephone, video, or even e-mail and other written communication; it become complicated rather quickly. That said, one of the benefits of our profession, and the way we interact with our patients, is we get to know them quickly, which allows us to make determinations about the most appropriate and safe means to continue their care.

Typically, when someone is discharged from an inpatient rehabilitation facility, for example, providers create a “discharge summary,” and the patient goes home and is instructed to begin their outpatient care. That usually involves a discharge from one location, then a brand-new evaluation, goal setting process, and outpatient plan development. We realized that many of the patients who were being discharged were the same people we were encouraging not to be out in public, or people who had limitations that made traveling to other sites challenging (e.g., the need for a caregiver to get them to outpatient therapy). We had to find a way to continue to engage with these patients while preserving their safety, so we worked with our inpatient and outpatient teams to use that discharge summary as a transition document. This gave outpatient teams a baseline for those patients and allowed them to continue providing care via telehealth as much as possible. We hope to continue providing this service post-pandemic.
One of our biggest challenges was incorporating virtual platforms into our care delivery models early in the pandemic response. These platforms helped us maintain continuity of care early on, and as time passed, policy changes allowed us to really incorporate virtual models into telerehabilitation. We are currently studying the impact of telerehabilitation on quality and patient outcomes, and we continue to be mindful of the strengths and challenges (e.g., access barriers to technology) our patients have encountered when adopting to this new model.

Pre-pandemic, it was in our scope of care to perform telehealth, but third-party payers, whether private or government run, considered it a “niche” service and did not recognize physical therapists as eligible to provide and bill for those services. In March 2020, we were asked to minimize in-person patient contact, and our governor’s orders allowed physical therapists to bill and be reimbursed for telehealth services provided to Medicaid patients. Medicare issued a similar statement in April, and many of our third-party payors issued emergency orders allowing us to bill and be reimbursed for these services. At first, these exceptions were made on a month-to-month basis; we had to review each payer’s policy accordingly. Over the summer of 2020, most organizations declared they would continue these policies until the public health emergency is declared over. This decision was also accompanied by an expansion of the CPT codes for which we could bill and be reimbursed.

At this point, we are evaluating where telehealth will go from here for physical therapy. We are hoping third party payers will examine outcomes achieved and make decisions appropriate to the patients regarding telehealth services provided by a physical therapist. As JJ said, some of our clients did experience some barriers to accessing the technology, so we are considering how to help overcome those types of challenges, as well as how we can continue to improve healthcare access via telehealth services.

In addition to telehealth, we developed a flexible care model to accommodate COVID-19-specific restrictions. Like all other healthcare facilities, we were preparing for potential significant patient surges and staff shortages; the information about the virus and its current and projected impact were changing daily (if not hourly).

First, our leadership team arranged to train all our physical therapists across our system to be able to operate in several sub-specialty areas and settings. We have approximately 700 rehabilitation service clinicians at OSUWMC; about 450 of those are physical therapists. Under our model, we took a hospital-based physical therapist in a medical-surgical unit, for instance, and trained them to a level of competency and comfort in an ICU, or high acuity setting.

A PT working in the ICU has additional training to work with high acuity patients who may be sedated and intubated, which impacts the types and intensities of therapy intervention. The ICU clinician has a thorough understanding of the lines, tubes, and monitors often involved in ICU care and adjusts interventions around this equipment, as well as based on the patient’s agitation/sedation status, delirium status, and mechanical ventilation needs. In both the ICU and the medical-surgical unit, early mobility is an important component of the patient’s care plan and therapy intervention.

Inpatient and outpatient therapists were trained, then sent to the general medical-surgical floors (and vice versa). We had inpatient and hospital-based therapists learn an outpatient model as well. This allowed us to move clinicians to any area of need in real-time, based on patient surges and to address any potential staff depletion events (which, luckily, did not take place).

We also created a team-based care model in our hospital settings. First, we evaluated what a safe clinician to patient caseload would be. Next, we prepared for an event that might radically and rapidly increase that event threshold. If we exceeded our threshold, we would identify an expert or team lead clinician and essentially assign a team of licensed, fully competent and comfortable clinicians to work under that team lead, allowing them to manage a much larger caseload at one time.

While these models may be limited to emergent situations, one model we will carry forward regardless is our ability to redirect staff to increase hospital capacity. Over the past year, we were able to deliver higher intensity, higher frequency care to lower acuity patients. What we found anecdotally is that when you take a hospital-wide, intense, aggressive, and safe focus on mobility for patients across your hospital, patient outcomes (e.g., length of stay, decreasing readmissions,
getting patients to home) improve. This has been demonstrated in the literature in the past, and we look forward to contributing to future published work demonstrating the impact of physical therapy, and mobility interventions in general, on key patient outcomes and health system metrics. We will continue to work with our organization to leverage the contribution our department has made to these outcomes.

MM

I think our culture helped us succeed as an organization. We felt a deep sense of a coordinated and aligned connection to our mission. Everyone from our university leadership to clinical support staff felt like we were “all in this together.” This alignment allowed us to rapidly transition into our organization’s hospital incident command structure. Lindsay referred to physical therapy as a dot connector—we weave and interact within, around, between, above, and below other professions in the healthcare continuum. This allows us to have both a horizontal and vertical focus.

We are also an active, empowering profession. Our success in working with patients is really built on plans developed and owned in conjunction with the patient, empowering the patient to buy in and own his or her goals, and to accomplish those goals with us. As such, when we translate that clinical core skill set to an operational skill set, as a leadership team, in physical therapy, we simply went to work doing what we always do: analyzing the problem, creating a working solution and a plan to achieve our goals, and evaluating and adjusting in real time.

LHM

Moving forward, we know that physical therapists will play a substantial role in patient recovery, as studies have shown many patients continue to report fatigue and muscle weakness, and trouble with mobility six months post-infection. We anticipate providing some “long haulers” training in adaptive equipment, such as assistive devices, and in energy conservation techniques to help patients manage their symptoms.

A typical caseload for a PT in an ICU setting may be 10-13 patients per clinician. We planned ahead for significant surges in patient volumes and/or decreases in clinician availability, focusing on:

a. Training additional clinicians to become ICU-competent, and

b. Creating the “team model” for care delivery.

Once we exceeded caseload of 17 patients in an ICU per PT, we would move to a team-based approach to care, or 1 “expert” clinician to 1-2 licensed “support” PTs. The expert would oversee the care for the entire caseload, and the support PTs would deliver care as a team, ensuring skilled and safe care for all patients. This would allow us to treat a higher number of patients at 1 time and still leverage the expert PT’s background in ICU care.

Because we did not experience any significant staffing shortages, we did not have to move to this level of care delivery for any extended period of time. However, in trialing this during training and preparation, we were confident that this can prove to be a successful model of care delivery in future emergency situations.