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April 2021 / Vol. 13 No. 3

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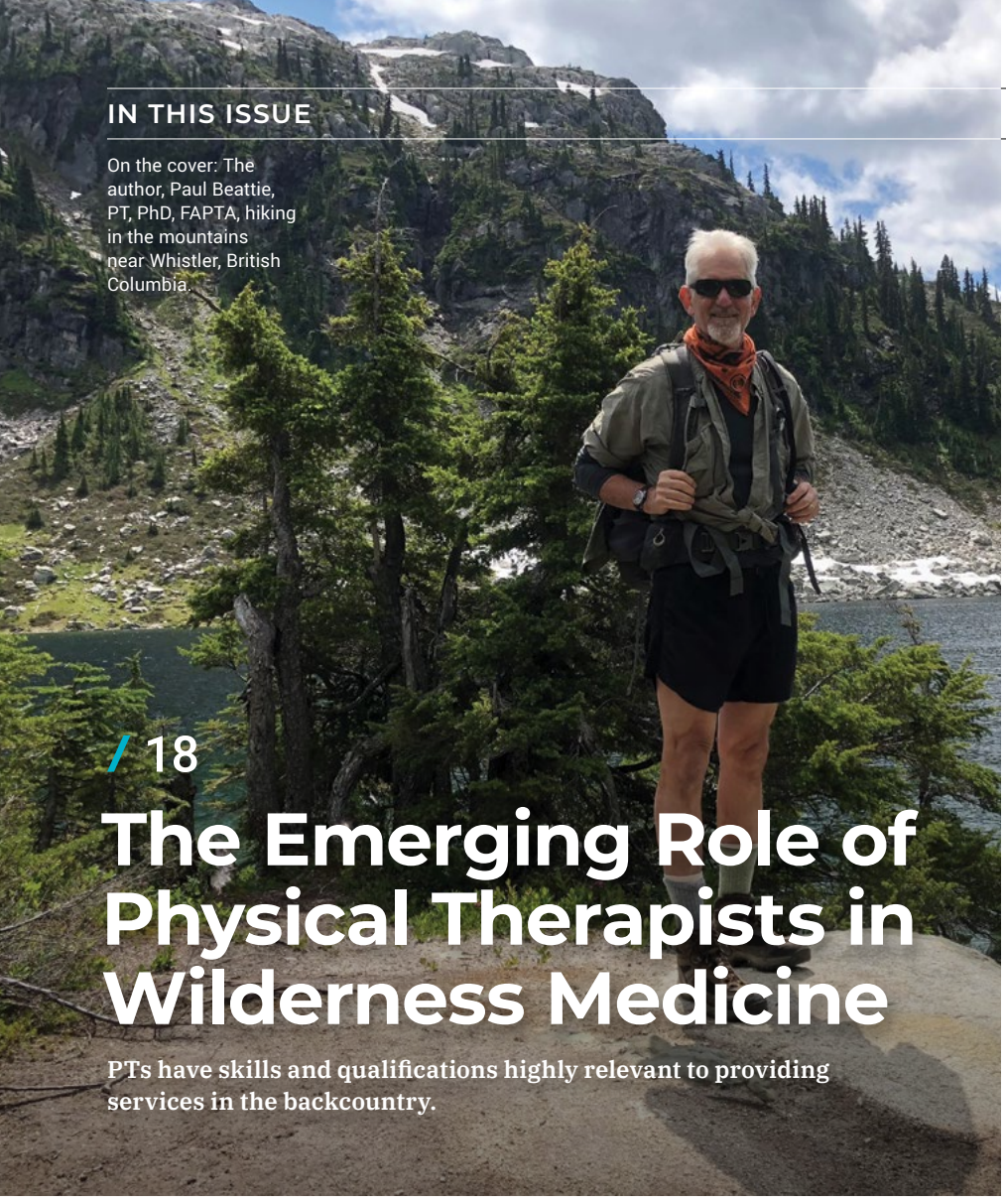
On the cover: The author, Paul Beattie, PT, PhD, FAPTA, hiking in the mountains near Whistler, British Columbia.



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“People are tighter with their money, so when they spend it they want to make sure the service is worth their while. The PTs who know that and provide that service will win and move forward. You’re only as good as clients say you are.”

Kellen Scantlebury, PT, DPT, in “Opportunities Exist in Projected Workforce Demand” on page 30.

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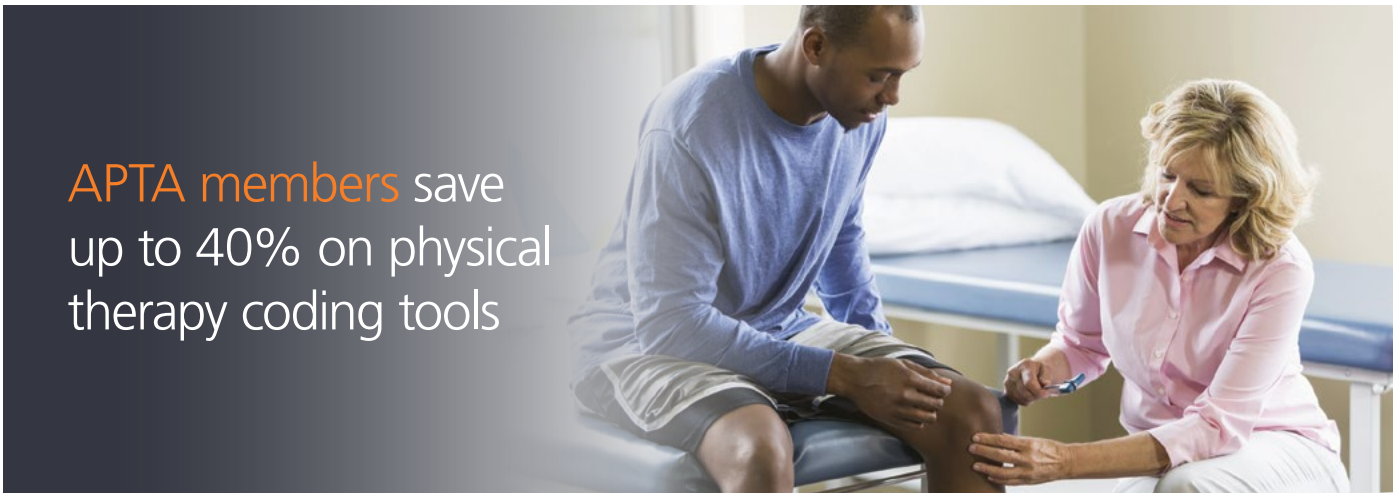

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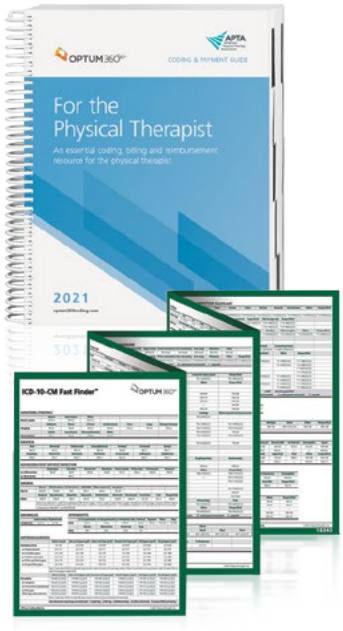

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Opinion

Physical Therapy Must Remain a Hands-On Profession

I am very concerned about one aspect of telehealth — that virtual visits are going to degrade the importance of physical therapy.

Physical therapy is called a hands-on profession for a reason.

The act of physical touch is extremely important for the physical, mental, and social aspect of the recovery process. Numerous studies have confirmed this. Researchers have found that if babies have skin-to-skin touch they do better than babies who are deprived of interpersonal touch.

Are we as a profession so focused on being able to conduct virtual visits that we are going to minimize the importance of a hands-on profession? Will we allow it to dictate how we treat our patients?

Virtual visits should be used with extreme caution, as some companies will undoubtedly fall back on these, raising the potential for abuse in the name of productivity standards. I don't want one patient who should have had an in-person visit but instead had a virtual visit slip through the cracks.

It's one thing to have a patient sit in front of a camera to relay useful information to you. But, for the most part, when we see somebody for physical therapy it is essential that we have one-on-one contact.

In many instances we are the last resort for these patients. Physical therapy doesn't just involve exercises. We assess the whole patient and take into consideration medications, environment, past medical history, and multiple

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other details that encompass each individual's circumstances. This is what enables them to succeed. We treat the whole patient.

For many years we have been getting patients who are sicker and sicker. Patients who should still be in a skilled nursing facility. Or who should have remained in the hospital longer but because of insurance restrictions were given less time to rehabilitate.

I hope in the ongoing mission to establish our importance in the health care field we take this new tool very seriously. The potential exists for patients to receive less hands-on care by using telehealth. I would propose strict guidelines be established for this new tool for our patient population, because they will be the ones most affected.

The potential for this tool to be used on inappropriate patients is very real. The elderly population is capable of using telemedicine, but this generation did not grow up using computers or smart phones. Or imagine a frail 90-year-old woman engaging in telehealth visits, and consider her level of ability to actually perform an exercise on her own. Now imagine that when she tries to demonstrate something, she falls, and you're not there to help.

In-person interaction is what sets us apart. It enables our patients to succeed.

Inevitably, telehealth will be used in instances where it should not be.

The team approach with all disciplines is effective. But can you imagine being a patient and having a remote visit with a PT, an occupational therapist, a speech-language pathologist, and a nurse? That could be overwhelming. In a perfect world this wouldn't happen, but delivery of physical therapy visits in a team approach doesn't always turn out the way that we planned.

Yes, telemedicine is a great tool for many things. But it carries with it the risk of watering down our profession and depersonalizing the delivery of quality care, especially to the frail elderly.

We should be cautious not to let telemedicine become the norm due to time constraints and pressure from management.

Today, we are faced with "the new norm" in all facets of health care and, more generally, in life. We will continue to be faced with this new norm, but it's up to us as a profession to maintain quality standards and determine the best methods of delivery of health care. Our methods should not be dictated by society's new norms.

EMILY EVANS, PTA

In-person interaction is what sets us apart. It enables our patients to succeed.

Forum

/ FEBRUARY 2021

Minority Small Business Success

The Viewpoint item "Minority Small Business Success" by Amado Mendoza was a great read, and it really opened my eyes to the challenges of small businesses in today's world. Please keep the good content coming!

MICHAEL PODZIELINSKI, SPT

I can relate to all the challenges that Dr. Amado Mendoza referenced in his Viewpoints article. As a new minority clinic owner, I partnered with two minorities OTs. We leased a 2000-square-foot storefront in January 2020. Two months later, the pandemic hit and we had to alter our marketing strategy. We could not push our brand because there were no events, and physicians' offices were not taking any visitors.

We have been fortunate to receive grants from our local chamber of commerce and county. We want patients to come because we are good, not just because we are minorities. Nor do we want people to stay away because we are minorities. So we have been struggling with how we want to identify the clinic on directories and materials. We embrace the opportunity to be successful as a minority business in the profession of therapy so that we can be a resource for minority groups that are considering taking on the task.

MARLON PEOPLES, PT, DPT
HOUSTON THERAPY SPECIALISTS

/ FEBRUARY 2021

Wearing Masks

Thank you for the Ethics in Practice column "Costly Comity." I've witnessed the same lax behaviors in my colleagues, especially in regard to mask wearing in our crowded office. It worries me for the health and safety of not only our patients, but also me and my family. I haven't yet been teased like the PTA in the article, but I discussed the issue directly with my colleagues three times, even though it was very uncomfortable to do so.

If any other readers have suggestions on how to deal with this matter, I would be very appreciative and open to hearing them.

SAMANTHA DURHAM (KUBINSKI), PT, DPT

/ MARCH 2021

Change Agents: Nutrition and Movement

I love the idea of change agents. One aspect not mentioned in the article was nutrition. As an intern, I first was located at a hospital in Houston renowned for treating heart disease. On the first floor was a well-known fast food outlet. My patients would ask me to take them down there. There seemed to be an absence of patient information about health and nutrition.

In school, I'd learned about movement and easing pain. But patients would tell me about taking medicine to dull the pain. Then I practiced in home health and got to see the environments in which these patients lived — bad food and not much movement. At the same time, I was educating myself about nutrition.

I spent 36 days with the Yawanawá, an indigenous people in the Brazilian rainforests, and it remains one of the most impactful experiences of my life. I became interested because where I was going with health pointed back to ancestral health, the way people lived 100 years ago. We'd hunt and fish together. I observed how they moved. There was also

»

a big emphasis on nature and the use of plants. In today's society, we've forgotten how to move. I felt a strong connection to all of it. There was a big difference in how I was living and how they were living.

Thomas Edison said that the doctor of the future will educate patients on nutrition and movement. I see myself as helping people get healthier. My credentials as a PT give me credibility with the people I'm working with. It's more than saying "I'm a coach." It will always be my zone of expertise, helping people get out of pain.

I started doing lectures, going to local gyms and businesses. It gained traction; people started asking me for information. I started to think outside the box and developed programs to get better results. Especially in this time of the pandemic, we know people who aren't healthy get hit harder.

To other PTs, I say: Broaden your scope. A lot of PTs who come out of school are good in just one thing, such as neurology or acute care. My advice: Learn more about nutrition, breathing, and lifestyle tips.

There's so much opportunity now for PTs to become health leaders.

CHAD WALDING, PT, DPT
CO-FOUNDER OF NATIVE PATH

APTA Asks ...

If you could say one thing to payers to help them understand the value of physical therapist services, what would it be?

Physical therapists are in a unique position in that they can help individuals after they've been injured, and, more important, they also can educate individuals about wellness and preventive services that will improve their quality of life, combat obesity and chronic conditions, and increase longevity. For payers, this means saving money. I would recommend that payers be proactive instead of reactive about health care, and PTs are the ideal partners to consider for wellness training and patient education.

SHARON GALITZER, PT, MSPT, DSCPT

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MATTHEW CALENDRILLO, PT

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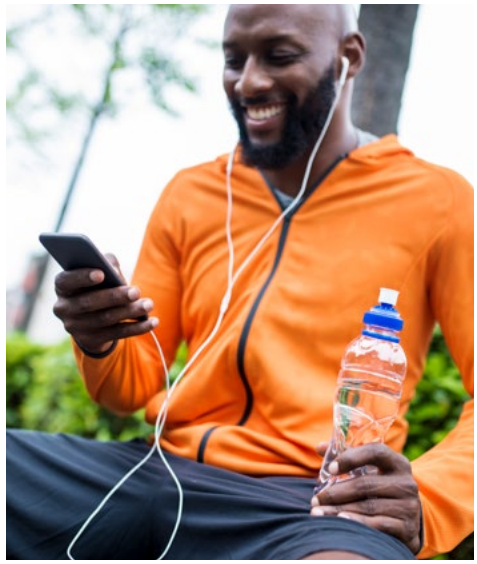
CRISTINA FONTANEZ GARRISON, PT, DPT



How are you educating the public about physical therapy and wellness?

I educate the public about physical therapy through my podcast, PTMEAL Physical Therapy. I interview Filipino physical therapists based in the U.S. and around the world about their expertise and experiences. Most episodes are in English, some are in Tagalog. We talk about specializations such as pelvic health, sports, orthopedic manual physical therapy, and pediatrics; practice settings such as home health and acute care; and special topics such as interprofessional education and collaboration, advocacy, and diversity, equity, and inclusion. I also release infographics on the podcast's social media for digestible information.

JOHANN JUSTINIANO DELA PAZ, PT, MS

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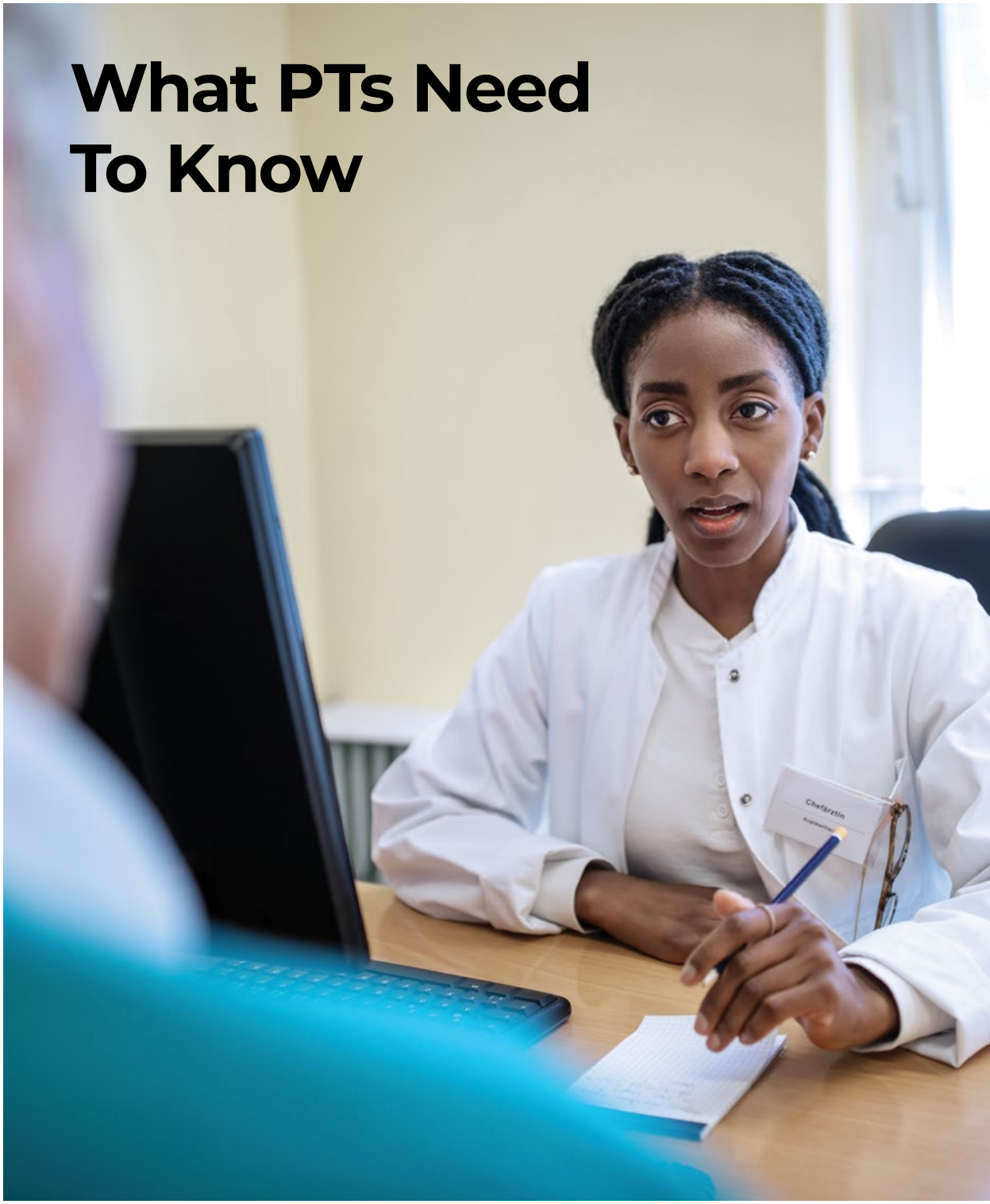
/ By Steve Postal, JD

Understand your legal obligations to your patients.

Informed Consent:

What PTs Need To Know



Steve Postal, JD, is a senior regulatory affairs specialist at APTA.

Informed consent is an essential aspect of ethical patient care. But what does the term really mean in practical terms? And what are physical therapists' and physical therapist assistants' obligations for obtaining informed consent from patients? This column provides some answers.

A PT must "respect the individual's right to make decisions regarding the recommended plan of care, including consent, modification, or refusal."

Key Principles

Two core principles underlie informed consent: patient autonomy and shared communication and decision-making between the patient and provider. The American Medical Association's Code of Medical Ethics states:

> Patients have the right to receive information and ask questions about recommended treatments so that they can make well-considered decisions about care. Successful communication in the patient-physician relationship fosters trust and supports shared decision making. The process of informed consent occurs when communication between a patient and physician results in the patient's authorization or agreement to undergo a specific medical intervention.

For patients to make what AMA calls a "well-considered" choice about their treatment, they must know what the proposed treatment promises, any associated risks, and the benefits and risks of the alternatives.

What Constitutes Informed Consent in Physical Therapy?

The APTA Guide for Professional Conduct, which provides interpretation for the APTA Code of Ethics for the Physical Therapist, does not use the phrase "informed consent." It does say that a PT must "respect the individual's right to make decisions regarding the recommended plan of care, including consent, modification, or refusal." The APTA Code of Ethics states that PTs must "provide the information necessary to allow patients or their surrogates to make informed decisions about physical therapy care" and "collaborate with patients and clients to empower them in decisions about their health care."

But the APTA Guide for Professional Conduct is tentative in its interpretation of the Code of Ethics regarding exactly what a PT must tell a patient. The document says only that a PT should "use sound professional judgment in informing the patient or client of any substantial risks of the recommended examination and intervention" without further defining what said judgment entails. The APTA Standards of Ethical Conduct for the Physical Therapist Assistant is similarly vague, stating that PTAs "shall provide patients and clients with information regarding the interventions they provide."

So what information does the patient need in order to give informed consent? A policy statement from World Physiotherapy (formerly the World Confederation for Physical Therapy) states:

> Competent individuals should be provided with adequate, intelligible information about the proposed physical therapy. This information should include a clear explanation of:
>
> - The planned examination/assessment.
> - The evaluation, diagnosis, and prognosis/plan.

Note: The information provided is offered for general informational purposes only. It is not offered or intended, nor should it be relied upon, as legal advice. Legal doctrines, statutes, and case law vary from state to state. You should consult with your own attorney for specific legal advice on legal issues.

Resources

APTA (at apta.org)

- APTA Guide for Professional Conduct, Principle 2C
- APTA Code of Ethics for the Physical Therapist, Principles 2C and 2D
- APTA Standards of Ethical Conduct for the Physical Therapist, Standard 2C
- Serving Patients With Limited English Proficiency

APTA Academy of Pediatric Physical Therapy (at pediatricapta.org)

- Resource Sheet: Informed Consent and Considerations for Telehealth in Pediatric Physical Therapy

AMA (at ama-assn.org)

- Code of Medical Ethics Opinion 2.1.1 — Informed Consent.

Center for Connected Health Policy (at cchpca.org)

- State Telehealth Laws & Reimbursement Policies (Fall 2020)

World Physiotherapy (at world.physio)

- Informed Consent: Policy Statement, May 2019

State laws vary, and there is no universally applicable rule about what, if anything, PTs must disclose to patients, or how they should document what they disclose.

- The intervention/treatment to be provided.
- The risks which may be associated with the intervention.
- The expected benefits of the intervention.
- The anticipated time frames.
- The anticipated costs.
- Any reasonable alternatives to the recommended intervention.

Legal Liability

Whether a PT could be considered legally liable for failing to give a patient information needed to make an "informed" decision depends on state law. Some state laws provide specific answers about which providers are obligated to obtain informed consent, what information they must provide to patients, and what kind of evidence will be sufficient to prove informed consent in the event of a lawsuit. Consult your state law, an attorney, and HPSO for specific questions on legal liability.

Some states have informed consent statutes that apply to PTs. Arkansas state law applies to claims against PTs and contains specific provisions regarding what a plaintiff must prove to show lack of informed consent. Utah's code gives specifics as to what a patient needs to show to be able to claim damages against a health care provider (including a PT) for failing to obtain informed consent, and what the proper defenses are for providers who fail to obtain informed consent. Other states have informed consent statutes that apply to PTs providing dry needling (Colorado), or services using telehealth (Kentucky).

In addition to the possibility of liability in a personal injury lawsuit, PTs might be subject to disciplinary action by their licensing board for failing to provide a patient with the information necessary to make an informed decision. For example, the rules of the Minnesota State Board of Physical Therapy provide that, in general, a PT "shall not provide patient care without disclosing benefits and substantial risks, if any, of the recommended examination, intervention, and the alternatives to the patient or patients' legal representative." Similarly, the rules of the Arizona Board of Physical Therapy provide that a PT:

> Shall respect a patient's right to make decisions regarding examination and the recommended plan of care including the patient's decision

regarding consent, modification of the plan of care, or refusal of examination or treatment. To assist the patient in making these decisions, the physical therapist shall: 1. Communicate to the patient: a. Examination findings, b. Evaluation of the findings, and c. Diagnosis and prognosis, 2. Collaborate with the patient to establish the goals of treatment and the plan of care, and 3. Inform the patient that the patient is free to select another physical therapy provider.

What To Disclose

State laws vary, and there is no universally applicable rule about what, if anything, PTs must disclose to patients, or how they should document what they disclose. As a starting point, PTs should comply with their state physical therapy practice acts and state regulations and consult with an attorney for specific questions. But, generally, it is better to err on the side of caution. The more information a PT provides about benefits, risks, and alternatives, the less likely it is that they will be held liable to a patient who claims the PT failed to provide adequate information.

The World Physiotherapy statement on informed consent offers a useful overview of the basic categories of information that PTs most likely would need to disclose. It cites the expected benefits of the therapy, associated risks, and reasonable alternatives to the proposed therapy, among others. It also states that PTs should record in their documentation, in a format required by their jurisdiction, that they have obtained informed consent.

Given the enormous scope of physical therapist practice, it is impossible to catalog all the expected benefits or risks of physical therapy. However, PTs should present the risks associated with manual therapy with careful consideration. One case worth

examining is Wilson v. Merritt, in which a patient with preexisting paralysis who greatly depended on his arms was injured by manipulation performed by a chiropractor while the patient was under anesthesia. The court in that case held that there was sufficient evidence that a reasonable and prudent person would not have undergone the procedure had he or she been informed of the risk of injury to the shoulder.

Another risk that PTs should consider is that of falls associated with therapy intended to improve ambulation. Falls are among the most common instances in which patients are injured during physical therapy. Common sense, therefore, suggests that PTs specializing in geriatric care should not only guard against falls but also warn patients about the risk of falling.

Disclosure and informed consent are needed in other areas as well, such as pelvic health and internal exams. Check with your relevant sections and academies to see if they have additional attorney-reviewed consent information.

Documentation

Documentation of informed consent should show two things: that the PT gave information, and that the patient understood that information and consented to the proposed treatment. Some states' regulations expressly require providers to document informed consent. Missouri requires that PTs and PTAs document informed consent but does not provide details as to what is required.

Proving that a patient understood what the PT communicated is more difficult than proving what information the PT provided. Therefore, obtaining the patient's signature at the bottom of an appropriate recitation of the information provided would be helpful, but not definitive. A statement saying only that the patient was given the opportunity to ask questions may not be very helpful in court to a PT needing to prove that they actually gave information about a particular risk or alternative treatment.

Some patients might be unable to understand the information provided by the PT, while others might be incapable legally of giving consent. For example, an adult patient with dementia might be unable to grasp even simple information presented by the PT, whereas an astute 12-year-old might be too young to give legal consent to a procedure that they understand perfectly. Further, for patients with limited English proficiency, failing to provide qualified interpreters could interfere with a patient's legal right to informed consent, in addition to preventing a patient's participation in shared decision-making. This failure could qualify as national origin discrimination under federal law. For specific issues relating to informed consent regarding incapacity and limited English proficiency, check your state laws and consult an attorney.

Summing Up

Because state laws, statutes, and regulations differ, there are few one-size-fits-all answers. By staying current and taking a measured, thoughtful approach, with input from legal counsel as appropriate, PTs can successfully handle the issue of informed consent in their own practice settings.

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The Emerging Role of Physical Therapists in Wilderness Medicine

A confabulated hypothermia wrap.

PTs have skills and qualifications highly relevant to providing services in the backcountry.

By Paul Beattie, PT, PhD, FAPTA

It is a gorgeous Saturday in early fall. After a busy week in the clinic, you and "Chris" — your fellow PT — are hiking on a backcountry trail near a popular but difficult-to-reach rock-climbing area. Suddenly you hear a loud thud followed by a painful groan. You look up the trail and see a young adult male laying on his back at the base of a rocky cliff. He obviously has fallen while climbing and landed hard. His two teenage climbing buddies run up to him and yell, "Tyler, are you alright? Can you get up? Come on Tyler, get up!"

What should you do?

If this scenario occurred on a neighborhood street, you probably would tell Tyler to remain still and ask his permission to stabilize his cervical spine while someone else called 911. In the wilderness situation, however, you are out of cell phone range and two miles from a road. You're on your own. You and Chris recently completed a wilderness first-aid course.

What should you do when you have no immediate access to emergency medical services? Do you take charge? This is a potentially serious injury that may require backboard immobilization, rapid extraction, and a spine work-up at an appropriate trauma center.

First responders prepare to place a cervical collar on an injured hiker.

This scenario illustrates some of the demands of wilderness medicine. (Continue reading about Tyler in the Clinical Scenario: Injured Rock Climber on page 27.) Conceptually, wilderness medicine occurs whenever patient care must be provided in a setting where help and resources are limited. A more poetic definition is provided by Seth Hawkins, MD, founder of Carolina Wilderness Medicine: "Medical care and problem-solving in circumstances where the surrounding environment has more power over our well-being than does the infrastructure of our civilization."

The need for wilderness medical care always has existed, but over the last 100 years a literature base has emerged that has led to the formation of solid evidence-based guidelines. Historically, the leaders of wilderness medicine have been military medical providers who face battlefield dangers in extreme environmental conditions (Butler, 2017).

More recently, backcountry medical skills have become central training components for law enforcement and forest service personnel. (Smith, 2017). Disaster and humanitarian relief missions as well as the growing demand for wildfire management also have created an expanding need for medical providers to function in austere environments.

Paradoxically, the need for social distancing during the COVID-19 pandemic has led many people to discover outdoor recreational activities such as hiking, climbing, mountain biking, and skiing. Unfortunately, this increased usage also has resulted in a rise in backcountry emergencies.

As the need grows to have trained medical personnel in the backcountry, it is not surprising that there is an emerging role within the wilderness medicine team for PTs who have first-aid training and backcountry skills.

Wilderness medicine practitioners face many challenges. These include the environment itself, scene safety, the potential need for extended care, and limited resources.

The Environment

The wilderness provides unparalleled beauty and tranquility. When things go wrong, however, a remarkable array of environmental challenges

"Prior to a career in physical therapy, I always had an appreciation for a broad range of knowledge and improvised solutions to unique problems.

This is one of my favorite aspects about working in the emergency care environment. Wilderness medicine is the mastery of this process and has helped with recognizing problems, providing care for individuals with scarce resources, and troubleshooting novel situations.

The more we can demonstrate our ability to bring useful solutions to the emergency caregiver team, the more we add meaning and value to our role in this and other related settings. Initially our contribution was a surprise, but over time it, delightfully, has become the expectation."

CARLEEN JOGODKA, PT, DPT

can surface. These can make it difficult to find, treat, and transport to safety people who are sick or injured. The hallmark of wilderness medicine is the capacity for care providers to identify and overcome these challenges.

One challenge is terrain. Access to wheeled vehicles often is unavailable, making it necessary to carry a patient over a long distance. This form of transport is difficult; Auerbach's "Field Guide to Wilderness Medicine" suggests it typically requires at least six strong adults to carry one person a quarter mile in the backcountry, and longer extractions require even more people. Emergencies can be complicated at high elevation as additional concerns such as altitude sickness, high-altitude pulmonary edema, and/or high-altitude cerebral edema can affect both the patient and the care providers.

Extreme weather conditions often are associated with the onset of injury and can complicate treatment and transport. Warm weather — not always extreme heat — can lead to dehydration and to a progression of potentially fatal heat illnesses. Cold weather — again, not always extreme cold — can lead to hypothermia and damage tissue from extreme cooling, i.e., frostbite. Many patients may develop hyper- or hypothermia following the onset of their injury or illness while awaiting care. These conditions can greatly complicate their treatment because thermal stress can adversely affect body core temperature and alter perfusion of blood to vital organs, resulting in life-threatening emergencies.

Rapid changes in the environment also can create major problems. These changes can lead to flash floods, wildfires, lightning, and animal encounters — all of which dramatically affect the safety of everyone on the scene.

Scene Safety and Management

Scene safety is the priority for virtually every encounter. This usually is not a major concern in hospital and outpatient care but is fundamental in wilderness medicine. The adage "there is no medical problem that you can't make worse" is highly relevant in the wilderness, because rescuers and providers who take risks in unsafe environments increase the likelihood that they also will become casualties, thus adding to the complexity of the scene while reducing the available resources.

Maintaining a safe scene in a wilderness environment requires leadership and constant attention. For example, in wilderness medicine the most experienced and skilled member of the team often is not the one treating the patient but instead acts as team leader to coordinate the patient care, assess and centralize the available resources, and plan for evacuation and call for help. These tasks can be especially difficult in a hectic setting, where there might be many people interfering with medical care. For example, recall Tyler who fell from the rock. His friends are giving him potentially bad medical advice by encouraging him to get up. A key goal on the scene is to diffuse this bad advice while keeping everyone calm and focused.

Another goal of wilderness medicine is to determine if additional help is needed and, if so, how to obtain that help. Do you transport the patient or stay and wait for help? Does the patient need to be carried?

In rare cases, a helicopter evacuation may be necessary, but these missions are extremely dangerous in the backcountry. It is always better if the patient can walk out rather than need to be carried or flown out.

In wilderness medicine "usability" is key for lower extremity musculoskeletal injuries. Injuries that would be treated with non- or reduced weight bearing in a nonwilderness environment are allowed if the patient is able to tolerate them in order to self-evacuate.

Extended Emergency Care in the Backcountry

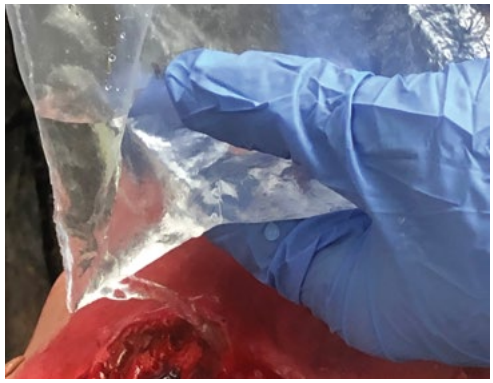
Considering the difficulty of transporting people who are injured and sick out of the backcountry, it is common to have to "sit on" on a patient — stabilizing and supporting the patient in place for hours or even days while waiting for help to arrive. This situation requires caregivers to have the backcountry skills needed to stay safe and build a camp around the patient.

Many challenges can occur during extended waits for help. For example, injured patients who may require emergency surgery with general anesthesia and those progressing to shock typically are designated NPO — nothing by mouth — and not allowed to eat or drink. However, during the prolonged wait for evacuation, dehydration and blood sugar emergencies may occur and compound the patient's problems. Intravenous fluids often are not available.

Maintaining the group dynamic and morale of the rescuing team always is an important concern. When the initial "adrenaline" has worn off, the scene can become scary. This is especially true at night in areas that pose potential weather and wildlife threats. Wilderness medicine leaders are trained to address this fear by keeping team members engaged in numerous important activities.

For example, patient care activities can include frequently repeating the primary assessment, checking dressings and splints, and carefully documenting repeated measures of vital signs. Other important activities include upgrading the shelter and providing food and warm drinks for the rescue team.

Squeezing a baggy full of clean water with a small hole in the corner is an effective way to irrigate an acute laceration.



Limited Resources and the Need To Innovate

In wilderness emergencies, a health care provider may have a large array of equipment specifically designed for medical care. For example, professional backcountry rescue teams might carry "jump kits" that have monitors, oral and injectable medications, equipment for oxygen administration, dressings, splints, and supplies for wound closure. This equipment allows rescuers to perform evaluations and procedures equivalent to what could be provided in a fully stocked ambulance. At other times, however, rescuers might only have what they are carrying in their backpacks — or perhaps just a water bottle and bandana. These situations lead to creative exercises and applications.

There are endless possibilities for confabulated medical equipment. An inverted baseball cap may be used as a cervical collar. A rain jacket might be used as a sling. Fill a baggie with clean water and squeeze it out of a small puncture hole to provide high pressure wound irrigation.

A person's life can be saved by a "hypothermia wrap" using basic backcountry equipment such as sleeping bag on top of a foam sleeping pad that is completely wrapped in a thermal space blanket and tarp to create an insulating "burrito." This wrap will help prevent further heat loss, but it requires an external heat source. One way to provide this is to heat water to near boiling using a portable camp stove. Then fill plastic bottles with the water, seal

"Being deployed as a PT in remote forward-operating bases during my tour in Iraq required me to constantly adapt and be creative. It was a remarkable experience and made me realize the value of physical therapy outside of the traditional health care environment."

MAJOR BENJAMIN BOWER, PT, DPT, U.S. ARMY

tightly, and cover with wool socks. Position these hot water bottles near the patient's axillae and groin to facilitate increasing core body temperature.

Making a fire in rain can be challenging. A great backcountry trick is to light petroleum gauze from a first aid kit on a piece of aluminum foil. Small wet sticks will easily catch fire, quickly resulting in flames. When you extinguish the fire, the aluminum foil can be picked up, leaving no trace of the fire.

Who Are the Wilderness Medicine Providers?

The field of wilderness medicine benefits from the knowledge of many professions. Beyond the skill sets from more obvious fields including orthopedics, sports medicine, and emergency medicine, contributions can come from military medicine, occupational medicine, women's health, environmental medicine, and more (Auerbach, 2013; Pollack, 2017; Weiss, 2005).

A large portion of the people who participate in backcountry care — such as most search and rescue teams — are specialty-trained individuals associated with the U.S. Forest Service or local law enforcement. They can be lay persons or professional. There are two levels of certification for lay persons: Wilderness First Aid and Wilderness First Responder. At the professional level are Wilderness Emergency Medical Technician and Wilderness Paramedic, as well as specialty-trained nurses, physicians, and physician assistants. The Wilderness Medical Society is an international multidisciplinary group that provides training and opportunities to obtain fellowship status.

The U.S. military provides advanced training in wilderness medicine skills for many occupational specialties and is recognized as the industry leader (Pruitt, 2008; Callaway, 2017).

Historically, these specialties have included medics and corpsmen as well as forward deployed nurses, physicians, and physician assistants. Recently,

Two examples of backcountry medical resources. Left: U.S. Army Special Forces medical jump kit. Right: Equipment for a typical backpacking trip.

TAKE THE WILDERNESS PLEDGE

The 2020 APTA House of Delegates amended the association's position on environmental stewardship (HOD P06-20-26-22). "Support of Environmentally Responsible Practice by the American Physical Therapy Association" states: "For the health of individuals, communities, and society, the American Physical Therapy Association supports environmental stewardship, a commitment to environmental sustainability, and enhanced public awareness of the effect of the environment on human movement, health, and safety."

One way to support this position and help minimize the human impact on the fragile backcountry environment is to take the "Wilderness Pledge" by making a commitment to follow "leave no trace" principles. These seven principles were developed by the Leave No Trace Center for Outdoor Ethics, and they provide a framework for good environmental stewardship. For more information, go to lnt.org/why/7-principles/.

1. Plan ahead and be prepared.
2. Travel and camp on durable surfaces.
3. Dispose of waste properly.
4. Leave what you find.
5. Minimize campfire impact.
6. Respect wildlife.
7. Be considerate of other visitors.

military PTs have become embedded with forward combat units and thus have become important providers in the wilderness environment. The lessons learned by these PTs and the great success of their participation has strengthened the potential role of PTs in wilderness medicine (Shaffer, 2016).

Battlefield experiences by the U.S. military over the past two decades have led to extraordinary improvements in emergency medical care worldwide. Today's combat troops and backcountry Forest Service rescue teams carry individual first-aid kits that contain lifesaving equipment to treat breathing and bleeding emergencies. The kits were developed by military backcountry medical personnel.

Physical Therapy in Humanitarian Relief Efforts

PTs also play a vital role as members of humanitarian relief teams. In this capacity, PTs live and provide care in austere environments. Their knowledge and skills in these settings are important components of emergency preparedness, disaster response, and recovery.

For instance, PTs are well-qualified to treat people with many conditions that may occur following disasters such as spinal cord injury, amputation, traumatic brain injury, fractures, burns, and peripheral nerve injuries. In addition, PTs can address accessibility challenges during an evacuation and movement to displacement facilities. This is especially important for people with mobility limitations. APTA has developed resources on the role of PTs and PTAs in disaster management. Go to APTA's website and search for "Emergency Preparedness" to see what's offered.

The Wilderness Physical Therapist

Based on successful involvement in the military and during humanitarian relief operations, PTs can add great value to the field of wilderness medicine. Their nonpharmaceutical and noninvasive core skill sets are useful in virtually every backcountry medical encounter. For example, "wheelhouse" PT skills include in-depth musculoskeletal assessment as well as comprehensive examination of the central and peripheral nervous systems. In addition, the PT examination of the cardiopulmonary and vestibular system can be of profound importance in the backcountry.

Wound care and splint confabulation frequently are needed, as is skillful patient handling and transport. Also important is the PT's ability to provide effective communication for history taking and to keep the patient and rescue team calm and focused. The therapeutic alliance between the provider and the patient is critically important in the wilderness medicine environment, especially when extended emergency care time is needed.

So, what would be good qualifications for a wilderness PT? While the basic physical therapist skill set alone can add great value, wilderness

"My first experience with wilderness first aid was working with the Forest Service prior to PT school. Combining my passion for hiking and backpacking with my PT skills is an exciting opportunity. The potential to expand the field outside the traditional clinic setting is an intriguing prospect for PTs like me who enjoy outdoor recreation."

KELLY SHEPARD, PT, DPT

care providers also need advanced first aid skills and must be able to survive in challenging environments.

Advanced first-aid skills include primary assessment, triage, CPR or basic life support, and hemorrhage control as well as management of dehydration, shock, heat illness, hypothermia, blood sugar emergencies, chest wall injuries, and abdominal and pelvic trauma.

Basic backcountry skills include knowledge of survival techniques such as shelter and fire building, water purification, knowledge of hiking and trekking, care of the feet, and land navigation. Climbing and water rescue skills also are desirable.

An additional critical skill is the ability to communicate professionally with emergency personnel off-site to integrate with support systems, remote clinics, and mobile treatment facilities. Interestingly, this communication is starting to be facilitated using drones and telehealth technologies, as reported by Christopher Van Tilburg in the June 2017 issue of Wilderness and Environmental Medicine.

Beyond providing immediate care to someone in the wilderness, PTs can help return patients to their high-demand activities in remote environments with limited resources. Unique functional rehabilitation considerations include carrying a pack over irregular terrain, paddling, and climbing. Other less obvious but hugely important considerations include hygiene and wound care in the backcountry as well as adequate hydration and nutrition.

PTs also can provide backcountry care at adventure races or ultra-marathons. In addition, being an on-site PT for wilderness therapy groups has the potential to be rewarding. Wilderness therapy describes a spectrum of outdoor-based adventure activities geared toward mental health and wellness. Traditionally these programs have been developed for adolescents and young adults to help them address and overcome mental health challenges. More recently, these programs have been offered to returning veterans who are experiencing traumatic brain injury, posttraumatic stress disorder, or other stress disorders.

Paul Beattie, PT, PhD, FAPTA, is a remote emergency medical technician and a wilderness emergency medical technician.

"As an emergency department PT, I see patients who have just arrived at the hospital from the backcountry. Understanding wilderness physical therapy has helped make me aware of the sometimes subtle but important additional problems that occur with injury or illness in the backcountry. Conditions such as hypothermia and debris in open wounds often can be missed when a patient presents with other more obvious problems. Further education in this practice niche has helped me enhance my differential diagnosis skills to provide a more comprehensive exam and advice for follow-up care."

TY COLLIER, PT, DPT

The backcountry's rough terrain has limited access for people with mobility challenges. In the past several years, however, extraordinary achievements in hiking and climbing by people with substantial physical impairments have inspired others. As barriers to participation drop, individuals with physical challenges are having an opportunity to venture far into the backcountry to enjoy the healing effects of nature. A PT on-site could help make this happen.

How To Get Involved

PTs interested in learning more should consider taking courses in advanced first aid. In-person courses are preferable and the most fun, but in our current environment many web-based opportunities are available and are a great way to improve your first aid skill set. Another option is to become a member of your local search and rescue or ski patrol teams. They function at both volunteer and professional levels and provide opportunities to be part of something that greatly benefits your community. Contact your local EMS, sheriff, or fire department to find out more.

Providing care as a physical therapist in the backcountry is not for everyone. But for PTs who enjoy wilderness activities, the core skill set of medical/trauma assessment and treatment without reliance on advanced medical equipment or drugs is a natural fit.

Paul Beattie, PT, PhD, FAPTA, is distinguished clinical professor emeritus of the Department of Exercise Science in the Arnold School of Public Health at the University of South Carolina. He also is a remote emergency medical technician and a wilderness emergency medical technician, and is actively involved in wilderness physical therapy. You can reach Paul at pbeattie@mailbox.sc.edu.

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SCENARIO:

Injured Rock Climber

Let us go back to the young man we introduced at the opening of the article — Tyler, who fell while rock climbing. What should you do? EMS protocols follow a three-stage patient assessment sequence that can provide a valuable framework: primary assessment, secondary assessment, and decision-making. (Keep in mind that while this scenario gives you a lot of detail, it isn't meant as instruction for a real situation, and many of the steps should be performed by a trained first-aid provider.)

The initial — and always most pressing — task is the primary assessment, during which scene safety for the rescuers, patients, and bystanders is the fundamental concern. To that end, start by donning a mask and gloves. While you are doing this, look for the possible mechanism of injury, which will help you create an initial impression of the likelihood for life-threatening injuries. In this scenario Tyler had a fall that could cause serious injuries to the head, spine, chest wall, pelvis, or extremities.

As you approach Tyler you need to establish leadership and get consent to treat. For example, say, "Hi. I am a trained wilderness first-aid provider. Can I help you?" If the patient responds "yes" you now have informed consent — and, because the patient is speaking, you know he has an open airway.

Next you evaluate the patient for immediate life threats. A useful acronym is MARCH:

"M" stands for massive hemorrhage. If you see or suspect a bleeding emergency act according to your first-aid training.

"A" is airway. Airway problems occur from foreign bodies or severe tracheal injury or spasm. If the patient is making noise, the airway is open. If not, open the airway using the chin lift method (or the jaw-thrust technique if there is a potential cervical spine injury) to visually examine the airway.

"R" represents respiration. Head, neck, or chest wall trauma may impair ventilation. Observe for chest rise during inspiration and look for any signs of cyanosis.

"C" stands for circulation — the degree to which the patient has a stable blood flow. In a responsive, nonbleeding patient a good place to start to assess circulation is by palpating the radial artery. In an unresponsive patient, the first step is to palpate the carotid pulse per CPR protocols.

"H" stands for hyper- or hypothermia, both of which can be immediate threats to life.

For our patient who has just fallen from the rock, your primary assessment is that the scene is safe to enter, but you must be concerned about the patient's overzealous friends and politely get them to step back. Tyler is alert, responsive, and gives consent to treat him. He appears to be in no distress, but because of the cause of injury you ask him to not move his neck. You ask your friend Chris to provide temporary cervical spine stabilization. You palpate his radial pulse and find that it is strong and regular. Your initial impression is that he may have a potentially serious injury to the spine but is in no immediate danger of dying.

Now you can move to the secondary assessment. This examination provides a more specific and focused assessment of the patient's chief complaint and associated medical problems or injuries. Following trauma, the physical examination is usually performed before the history, to identify important conditions such as fractures or dislocations that may influence how you move the patient. Precise measurement of vital signs is obtained last because you have already addressed the presence of open airway, breathing, and circulation.

The Three Stages of Patient Assessment in Wilderness Medicine

1	**Primary Assessment:** Immediate Life Threats
2	**Secondary Assessment:** History, PE, VS
3	**Treatment Decision:** Stay or Go?

You begin your physical examination with the patient supine while Chris continues to stabilize the cervical spine. You carefully palpate the patient's head, being cautious to not push inward in case there is a depressed skull fracture. There is no blood or swelling and Tyler reports no tenderness. You observe that his pupils are round and symmetric. You check pupil response to light with your cell phone flashlight and find that this is normal. There is no debris or swelling in his ears, nose, or mouth. Based upon these findings you conclude that the head, eyes, ears, nose, and throat are normal.

First responders to the scene begin a primary assessment of an injured climber.

You move to the neck. The trachea is in its normal midline position and there are no signs of jugular vein distention that might occur with a lung injury. Careful palpation of the sub-occipital and poster-lateral cervical spine does not provoke any pain and there is no obvious bruising. The anterior and lateral chest wall and abdomen are palpated. The patient can take a deep breath and exhale without difficulty, and none of the four quadrants of the abdomen is tender. There is no report of pain when the iliac crests are pressed medially. These findings suggest that there is no serious pulmonary, chest wall, or abdominal trauma, and there is little likelihood of a pelvic fracture.

Both clavicles and all four extremities are palpated and are not reported to be tender. A neurovascular check is performed for all four extremities. This check includes palpation of the radial and posterior tibial arterial pulses, dermatomal sensory testing of the feet and hands, and assessing the presence of distal active motion against manual resistance in all planes. These tests are normal in your patient, and now you can gently roll him to the side while Chris maintains careful manual cervical spine stabilization. In side-lying, the spinous processes from C2-L5 are carefully palpated and are not tender. The patient does have mild tenderness at the L3-L5 level bilaterally over soft tissue at 3 centimeters from the midline. You place a foam camping pad under the patient as he is rolled back on to his back.

It is now time to obtain a patient history. This is typically done using the acronym SAMPLE. "S" stands for current symptoms. The patient says he landed on his low back and did not hit his head. His back is a little sore with a 3/10 pain intensity.

He denies numbness, tingling, or a feeling of weakness in the extremities. He indicates that he has no known allergies ("A"). He states that he is taking no prescribed medications ("M") and has no history of medical problems or previous surgeries ("P"). He had two packs of oatmeal for breakfast three hours ago and has consumed about half a liter of water today ("L"). He denies using any street drugs or alcohol. The patient recalls the events of his injury very clearly ("E").

The last part of the secondary assessment involves measuring vital signs. Before taking other measurements, you determine Tyler's mental status and find that the patient is alert and appropriately responsive and oriented. Tyler states that he is 18 years old and is a student at the local community college. He moves all four limbs on command, and his skin is warm and slightly moist. You obtain heart and respiratory rate, and conclude that his vital signs are normal.

Now you must make a decision: Should this young man get up and walk out of the forest with you, or should you call for help to carry him on a spine immobilizer? To allow him to move with an acute spine fracture could lead to further and potentially devastating consequences. Transporting him out of this difficult terrain, however, could be difficult and dangerous for rescuers.

This is where is the knowledge and skills of neuromuscular assessment can pay off. Wilderness Medical Society practice guidelines for spine immobilization in the austere environment indicate the use of the modified "NEXUS" criteria in this situation. These criteria suggest that you can cease spine precautions in the backcountry after examination findings reveal: (1) a mental status of alert and orientated; (2) a normal neurologic exam; (3) no recent ingestion of drugs or alcohol; (4) no midline tenderness to palpation; and (5) no distracting injury. Tyler meets these criteria and has no other signs or symptoms that suggest other serious injuries. He should be able to slowly get up and attempt to walk back to the trailhead under his own power.

What should you do now? What is your overall responsibility and liability as a caregiver in this situation? In this scenario you would be protected by Good Samaritan laws based on the facts that Tyler is an adult who is not cognitively impaired and gave you verbal consent to treat him; you are not charging for your services; and you did not exceed your level of training in providing care (had you not been trained adequately you would have transferred care to a person of equivalent or higher training). It is time to decide on intervention or evacuation.

You discuss the wilderness medicine spine trauma guidelines with Tyler and say that if he chooses, it would be okay for him to try to get up. He agrees and slowly stands up and walks a few steps, after which he states that he feels he could walk out but would like you to come with him. You gather up and carry Tyler's pack and climbing gear so that he can make the two-mile walk out without carrying any extra weight. Before you leave the site, you do a careful sweep of the area to make sure you follow "leave no trace" principles.

When you reach the trailhead you approach a forest ranger, introduce yourself, and provide a detailed report of your evaluation and evacuation of Tyler. The ranger, who is a paramedic, accepts and documents the transfer of care to the Forest Service, which transports Tyler to the local medical facility. You are provided a copy of the transfer of care. Tyler thanks you and leaves with the ranger.

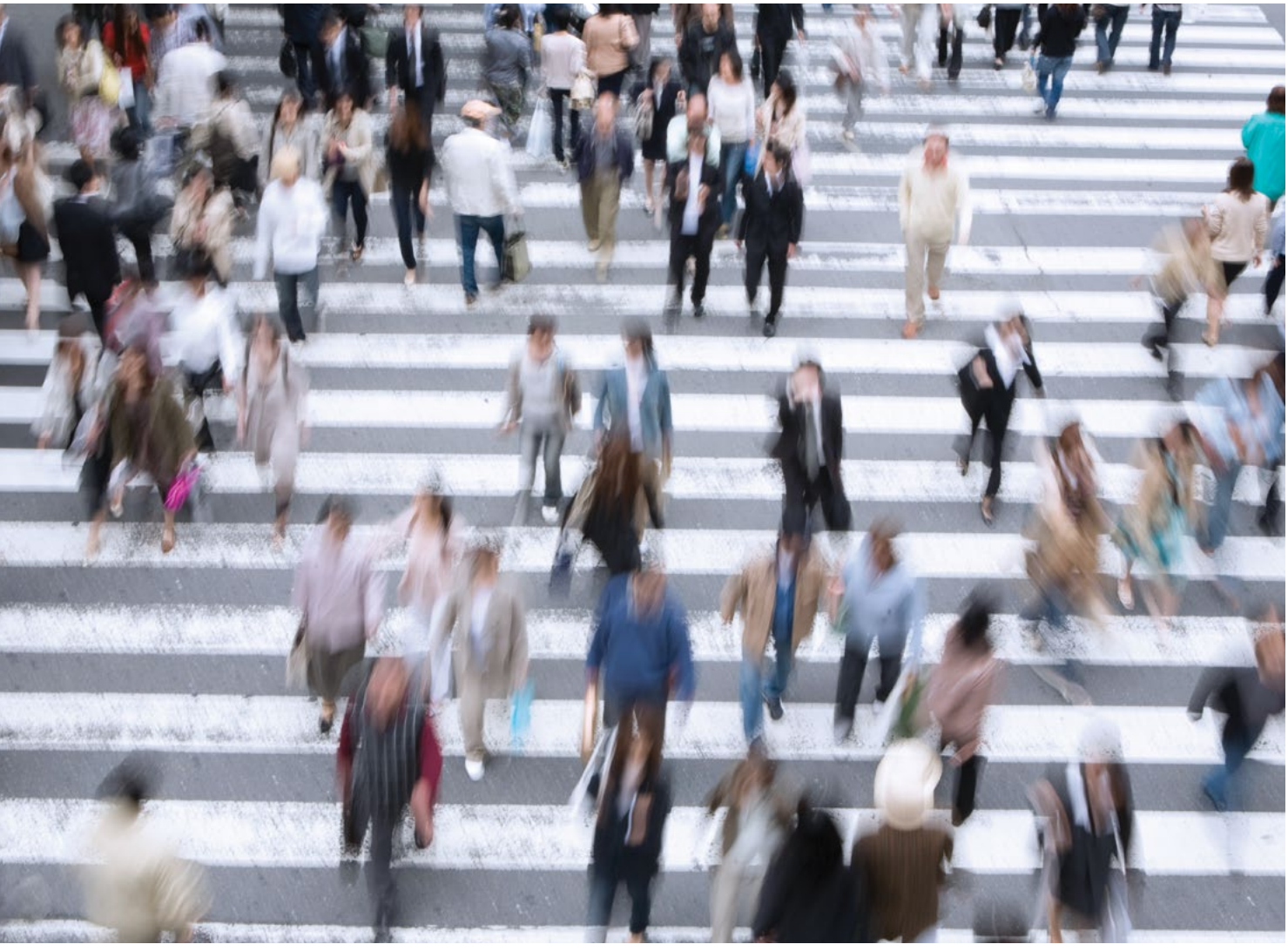
"This case illustrates how knowledge of wilderness first aid and backcountry skills can be enhanced by the PT skill set for taking charge of the scene, communicating calmly, developing a therapeutic alliance, and performing a neurologic, musculoskeletal, and pulmonary exam."

This case illustrates how knowledge of wilderness first-aid and backcountry skills can be enhanced by the PT skill set for taking charge of the scene, communicating calmly, developing a therapeutic alliance, and performing a neurologic, musculoskeletal, and pulmonary exam. It also illustrates your roles and responsibilities in an unexpected event as a Good Samaritan caregiver.

This scenario emphasizes an emergency first-aid role in the wilderness, but there are many other more traditional functions for PTs, especially as they relate to rehabilitation of people who have become ill or injured in the backcountry. Providing physical therapist interventions for people who have been injured fighting wildfires is one example; every year thousands of people participate in this brutal work.

Firefighters in wilderness areas face numerous health risks, including musculoskeletal injuries, burns, heat-related illness, respiratory damage from smoke inhalation, and rhabdomyolysis, a potentially fatal injury to skeletal muscle. The knowledge and skills of a PT who could participate in the care of firefighters either on scene or in a hospital environment are invaluable.

Opportunities Exist in Projected Workforce Demand



APTA's new workforce analysis projects PT supply and demand through 2030. The imbalances offer opportunities for the profession.

By Donald E. Tepper

What does the physical therapist workforce — both its numbers and its demographics — look like? How is it likely to change over the next 10 years? And why is this important for the profession, for patients, and for society?

APTA set out to address these and other questions in its recently released APTA Physical Therapy Workforce Analysis. Published in December 2020, the association's report explains that by analyzing and forecasting workforce supply and demand, it's possible to identify shortage areas, evaluate employment potential, and bolster advocacy that improves health care delivery. (For the complete report, go to APTA's website and search "workforce analysis.")

The study used an array of data sources including APTA's membership database and practice profile survey, the Commission on Accreditation in Physical Therapy Education, the Federation of State Boards of Physical Therapy, the Bureau of Labor Statistics, the United States Census Bureau, and analysis by Deloitte of the Census Bureau's American Community Survey.

Here are some findings of the APTA study, accompanied by discussion of the study's topics by PTs that APTA Magazine interviewed for their insights.

Supply and Demand Trends Present Opportunities

APTA's model foresees that increases in the national supply of physical therapists will outpace expected growth in demand for services based on an increase in the U.S. population who have health insurance. Building on current graduation, licensing, and attrition trends, the model predicts an estimated demand for 228,000 PTs in 2030, versus a supply of 253,000, resulting in a surplus of 25,235 physical therapists. Earlier APTA workforce projections, using a different methodology, included multiple scenarios with predictions ranging from a surplus to a deficit.

The newly released report notes that the profession has opportunities to address the projected imbalance. For example, looking at current statistics, the report found that the number of licensed PTs per 100,000 people varies widely by state; Vermont has the highest number with 117 PTs per 100,000 population, while at the other end of the spectrum Nevada has 38 per 100,000 population. There is opportunity to correct these existing imbalances in the geographic distribution of physical therapists, the report says. Other opportunities include

To calculate supply, APTA uses data on the number of new entrants to the workforce minus attrition from the profession. New entrants include recent graduates from U.S. physical therapist professional programs who pass the licensure exam and internationally educated physical therapists who obtain licensure in the United States. Attrition includes individuals transferring to other occupations or exiting the labor force altogether.

"PTs need to reinvent themselves. Even those who accept insurance. They will have to look at integrating wellness and aftercare — what we used to call postrehab. We will combine wellness, performance, and injury management."

Lisa Chase

meeting increases in demand due to changing population characteristics and continuing to expand in emerging areas of practice.

The PTs interviewed for this article described opportunities they expect to arise.

Carl Martin, PT, for example, sees ergonomics and environment modifications as promising areas in which PTs may expand. He says, "One avenue to explore deals with environmental modifications — new buildings or renovations. The PTs will know acceptable standards for all — not just standards for people who have handicaps — such as heights of desks and kitchen counters, helping the entire population avoid injuries. That will open up opportunities for PTs to work for and with engineering and architectural firms." Martin is a senior physical therapist at Four Seasons Rehabilitation in Brooklyn, New York.

He also says, "I've done a lot of work on hardening and strengthening programs in the outpatient setting, mostly for patients with back injuries, or upper or lower extremity injuries. I've also used videogame assistance in subacute rehab." The opportunities are there, Martin continues, for PTs who develop their skills in helping patients with those injuries.

Lisa Chase, PT, puts it bluntly: "PTs need to reinvent themselves. Even those who accept insurance. They will have to look at integrating wellness and aftercare — what we used to call postrehab. We will combine wellness, performance, and injury management. Already, after a patient injury, we're pulling in other disciplines as a team to address areas such as nutrition. It won't just be a question of how we help a person heal faster from an injury. It will include injury prevention." Chase is the owner of Back 2 Normal Physical Therapy in St. Petersburg, Florida

The pandemic, Chase explains, provided a glimpse into the future and is helping shape the practice of tomorrow. "I have seen, especially since the start of the pandemic, PTs being the front line for patients with musculoskeletal injuries such as low back pain and shoulder pain. Rather than those patients going to an emergency room or urgent care, they're coming to see us. That's something I think will continue. People are looking for a more personalized practice with not as many people around."

John Gallucci, PT, DPT, ATC, sees similar opportunities as greater public awareness of physical therapy converges with the implementation of direct access. "When we look at physical therapy, in the last five to 10 years we've seen society accepting physical therapy as a profession of primary care and direct access. With that said, we've seen a dramatic increase in utilization of physical therapy not only for injury and illness but also for prevention by addressing biomechanical function. The increase in patients has been in outpatient settings. Here in the Northeast, we see a tremendous number of outpatient physical therapy centers, similar to what's occurring in the Midwest. Clinics are appearing in malls and shopping centers, where it's become part of everyday physical care."

He is CEO of JAG-One, with 85 clinics in New Jersey, Pennsylvania, and New York. He's also the medical coordinator for Major League Soccer and is the former head athletic trainer of the New York Red Bulls soccer team.

Gallucci credits some of the increased awareness and use of physical therapy to APTA's Vision 2020 and the transformation to a doctoring profession. He particularly credits direct access, explaining, "We've promoted that so well that the populace of America is looking for guidance from PTs."

Gallucci also indicates that the geographic imbalance of PTs that the APTA workforce study identifies is not only state to state. "In inner cities with large

populations the demand for the use of physical therapist services is not being met," he says.

Kellen Scantlebury, PT, DPT, agrees that the public's growing understanding of physical therapy has increased demand, but it's also made the public more demanding. He explains, "Client expectations are changing. For so long, people didn't know what PTs did. Now they're getting a glint. They realize there's more to physical therapy than ultrasound and e-stim. They're looking for high-level exercise, hands-on treatment, and a PT who can track their progress outside the clinic. People are tighter with their money, so when they spend it they want to make sure the service is worth their while. The PTs who know that and provide that service will win and move forward. You're only as good as clients say you are." Scantlebury is CEO of Fit Club NY, with offices in Brooklyn and Manhattan.

Race and Ethnicity

The workforce report makes a statement that APTA has acknowledged and is working to address: Black and Hispanic/Latino PTs and PTAs are underrepresented in the profession.

Backing the statement are statistics from the report's sources. Although the overall U.S. population is 60.2% white (not Hispanic), Deloitte's analysis of the Census data found that 76.7% of PTs identify as white (not Hispanic). Census data also revealed that 12.3% of the population identifies as Black, while 3.6% of PTs do so. Similarly, 18.3% of the nation's population is Hispanic or Latino, while 5.3% of PTs are, again according to the Deloitte analysis. The demographic profile for PTAs is comparable.

APTA's own data sources showed the same pattern — a greater proportion of white PTs and PTAs and a smaller proportion of Black and Hispanic physical

Black and Hispanic/Latino PTs and PTAs are underrepresented in the physical therapy profession, compared with the general population based on U.S. Census data.

"In the last five to 10 years we've seen society accepting physical therapy as a profession of primary care and direct access. We've seen a dramatic increase in utilization of physical therapy not only for injury and illness but also for prevention by addressing biomechanical function."

John Gallucci

Female PTs earned 90% of what male PTs earned, and female PTAs earned 91% of what male PTAs earned. Gender wage gaps are notably present and the physical therapy profession is not immune to this systemic issue.

therapy providers than is reflected in the general U.S. population.

The report explains the various ways that APTA is seeking to address this gap. These include expanded student recruitment efforts to diversify the pipelines into the profession, formal recommendations to the Commission on Accreditation in Physical Therapy Education regarding accreditation standards and required elements that would improve diversity in PT and PTA education programs, the development of a standing committee on diversity, equity, and inclusion, and various DEI fundraising efforts, including the two-year Campaign for Future Generations. (For more on APTA's DEI initiatives, see "Diversity, Equity, and Inclusion in Physical Therapy" in the February issue of APTA Magazine.)

The PTs interviewed for this article shared their views on ways to better align the PT and PTA workforce with the population they serve.

"As an African American physical therapist owner," Kellen Scantlebury says, "I'm hoping to see a trend toward inclusion. We make up a very small population of clinic owners, and I'm hoping to change that and give opportunities to others. There isn't a knowledge gap; there's an opportunity gap. I will continue to give opportunities to those who might not receive opportunities in other places. I don't have enough data to know the hiring trends nationally, but we need to do a better job of being inclusive. We have to look in the mirror and ask, 'What can we do?' 'What can I do?'"

"We make up a very small population of clinic owners, and I'm hoping to change that and give opportunities to others. There isn't a knowledge gap; there's an opportunity gap. We have to look in the mirror and ask, 'What can we do?' 'What can I do?'"

Kellen Scantlebury

Many of the PTs did speak of growing diversity in both their practices and elsewhere.

Scantlebury notes, "We have hired minorities — Black, Asian, straight, lesbian, gay, and other PTs. I like to practice what I preach. Especially in New York City, it's important to connect with your patients. We must be respectful to everyone. We've gotten feedback that our team embodies these principles as well. It also would adversely affect our business if that attitude of respectfulness wasn't felt by our patients."

Karena Wu, PT, DPT, paints a similar picture. Wu, CEO and clinical director of ActiveCare Physical Therapy, with clinics in New York City and Mumbai, says, "As a Japanese-Chinese female business owner, I'll get PT applicants who are enamored with that combination. I've likened my practice to a United Nations

of physical therapy. I've hired licensed PTs who are Indian, Thai, Polish, Egyptian, Brazilian, and Canadian, among others." Wu is a board-certified clinical specialist in orthopaedic physical therapy.

Although APTA's workforce report states that the profession has a way to go to fully reflect the overall population, it's made significant strides, asserts John Gallucci. He says, "In the last 10 to 15 years, we've seen the profession becoming a beautiful melting pot with all races and religions represented. The profession has done a good job of promoting integration. If you look at our peers who put APTA's Vision 2020 together, the concept was great. The vision was extraordinary. Now it's up to us as a profession to meet the demand we've created."

Gallucci referred to Vision 2020, which was adopted by APTA's House of Delegates in 2000. At that time, the organization felt change was critical to the future of the profession, the association, and the patients and consumers its members treat. The vision included six elements, each containing goals that leadership hoped to achieve by 2020: direct access, evidence-based practice, professionalism, doctoring profession, autonomous practice, and practitioner of choice. In 2013, feeling that the profession was well on its way to meeting those goals, the House retired Vision 2020 and adopted a new vision statement: "Transforming society by optimizing movement to improve the human experience."

"It's beginning to change," is the view of Carl Martin, PT, referring to the profession's composition. He says, "That's a key point. Patients feel comfortable when they have their own counterparts, not that I've seen a lot more minorities coming as directors or head of administration."

Mary Long, PT, is chief operating officer of Theradynamics, with 10 physical therapy and occupational therapy locations in New Jersey and New York. "Most of our therapists are Spanish, Black, Filipino, Indian, Chinese, and Korean. Many of our therapists are bilingual. We believe that our staff should be representative of our diverse patient base and be able to speak the same languages as our patients. It's important to be diversified and set ourselves apart."

> "Due to COVID-19, the majority of our patients don't want to go from the hospital to subacute rehab. Patients are going from hospitals straight to their homes. As a result, we've seen a lot of people looking at telehealth."

Carl Martin

Lisa Chase, PT, also has worked with PTs from around the world. But in her case, she often was the one travelling to work with international PTs, patients, and clients. She served as director of sport science and medicine for the Women's Tennis Association tour, covering international events that include Wimbledon, the French Open, and the U.S. Open. During the 2004 Olympics in Athens, she was the primary health provider for the International Tennis Federation. Working with international PTs and patients was a necessity, not a choice.

"When I travelled on the women's tennis tour, we had therapists, staff, and our patients — the athletes — from all over the world. We had every ethnicity. That's been going on for years. To me, everyone is treated and should be treated equally. We all need to learn about other cultures. When I went to a new place, I always tried to learn some of the language," Chase recounts. Now the owner of a Florida private practice, she has continued her push for inclusion and understanding. "I've been involved in an initiative with St. Pete and its mayor, in which we try to bring care and exercise to the community either at no charge or at a discounted rate."

Several PTs also discussed the sex and gender divide. APTA's workforce report found that — depending on the data source — somewhere between 65% and 70% of all PTs are women, as are 63% to 71% of PTAs. But the female dominance in numbers isn't reflected in their salaries. Both APTA and Deloitte found that male PTs and PTAs are paid more than their female counterparts. Lower pay, these PTs assert, is only one reflection of the status of women in the profession.

Chase says, "Various things need to continue to grow to ensure equality. I'm female. I've seen, throughout my

> “It’s interesting how much the pandemic affected our usually bullet-proof profession. I weighed the two options: Stay open and struggling, or stay closed and struggling. ”

Karena Wu

career, that men have had more opportunities than women. That’s something that should always be at the forefront of the mind.”

Martin notes the scarcity of women in management and upper levels of academia. “When I graduated, those functions were primarily (male) oriented, but I see that in most schools (women) appear to be taking over those positions, which I love to see.” (For a further discussion of women in physical therapy, see “Empowering Women in the Profession” in the November 2020 issue of APTA Magazine.)

The Effect of COVID-19

The APTA workforce analysis acknowledges that it uses data collected prior to the COVID-19 pandemic and does not explore the impact of COVID-19 on physical therapist supply and demand.

The PTs interviewed for this article offered their views. Generally, they expect the profession to rebound from the effects of the pandemic, albeit with some permanent changes.

Karena Wu says, “It’s interesting how much it affected our usually bullet-proof profession. I’m in a freestanding 2,400-square-foot clinic three blocks from the Empire State Building. I luckily managed to stay open the entire time, but the number of staff dropped to me, a PT who worked remotely in New Jersey, and an office manager. We kept the business open, though at one point it was operating at only 10% of previous levels. I weighed the two options: Stay open and struggling, or stay closed and struggling.

“Our profession took a hit, but we’re going to recover. It’s just going to take a long time. As an optimist, I would have said by the middle of 2021. But, with a shortage of vaccine and its slow initial rollout, it may take a year, possibly two.”

“The pandemic smacked us all in the mouth pretty hard,” Scantlebury comments. The number of employees in his practice dropped and now stands at four PTs, one PTA, a strength and conditioning coach, and administrative staff. Going forward, he sees a rebound and a more resilient practice. He

As the base year of the model is 2019, the model uses data collected prior to the COVID-19 pandemic and does not make assumptions about the impact of COVID-19 on physical therapist supply and demand. This impact will be reflected in future projections as the data becomes available.

explains, "One of the biggest trends has been flexibility. Some PTs built an entire practice on manual therapy, and now they must treat patients virtually. That's a major disconnect. Our practice is hiring for flexibility so that we can see patients virtually. There's a different personality involved when a PT is treating virtually. It takes someone who is highly creative in their approach to exercise prescription. Verbal skills are much more important, too. You can't touch the patient, so there's more reliance on your verbal abilities. Those have to stand out."

Mary Long reports that Theradynamics already has seen a rebound. In 2019, its outpatient clinics averaged 7,000 visits a month. Now they average 7,700 visits. One underlying reason for the growth, Long says, "is a response to meeting community needs. The population is growing and becoming more educated about physical therapy." She also attributes the recent rebound to pent-up demand: "People have been delaying some services for more than a year. Some realize they can't delay any further. They can't wait any longer from a quality-of-life perspective. Our patient visits initially dropped but then have built back up."

Another factor spurring demand is directly attributable to COVID-19. Long explains, "COVID-19 is leading to people staying home more. They're experiencing weight increases. Also, people are not used to working from home — their desk and chair settings and arrangements may not be ideal — the result being greater workplace injuries. We expect our clinics will continue to experience these referrals and we'll be there to meet these demands."

Patient concern for their safety has increased, Long reports. To address this issue, PTs need to ask themselves how they can make patients feel safe when they come into the clinic. "COVID-19 has only heightened the awareness we already have. We use an air purification device and UV-C sanitizers. We require masks and enforce social distancing. We make patients feel they can come and be treated safely. The needs for physical therapy will still be there, whether it's during the pandemic or postpandemic."

The Growth of Telehealth

The pandemic has accelerated the move to telehealth, which will open up additional ways that many PTs can practice. That, in turn, may affect physical therapist supply and demand. Telehealth also offers the possibility — as suggested in the workforce analysis — to correct the existing geographic imbalances and address changing population characteristics.

Martin says, "Due to COVID-19, the majority of our patients don't want to go from the hospital to subacute rehab. Patients are going from hospitals straight to their homes. As a result, we've seen a lot of people looking at telehealth. I know it takes out the personal interaction that PTs love, but we want to make sure that patients are not being forgotten if they go home. We're concerned, as well, for the health of our patients and our PTs.

"I'd already been introduced to telehealth while I was on the Women's Tennis Tour," Chase says. "Today we're using it from both wellness and health care perspectives. We have clients who live some distance away and don't want to drive here. I see that continuing to build into doing consultations through telehealth. Patients who are afraid to come in are asking what they can do to help themselves. That's another area that will grow — giving self-care strategies to patients."

Wu predicts a growing demand for telehealth from people on vacations or business trips. "I think that's where telehealth will make a big difference," she says. She continues that in addition to increased use of telehealth to provide care for patients, there may be an increase in telework for PTs and other staff. "We had our front desk coordinator running the desk from her home" in response to the pandemic, Wu says.

Long agrees that the pandemic has created opportunities, but she also warns, "If telehealth is to become successful, it's important that insurances authorize and pay for these types of services."

Donald E. Tepper is editor of APTA Magazine.

"We make patients feel they can come and be treated safely. The needs for physical therapy will still be there, whether it's during the pandemic or postpandemic."

Mary Long

By Donald E. Tepper

The Myths and Mysteries of Post-Intensive Care Syndrome

PICS occurs following an episode of acute care. No one is quite sure why, yet it affects more than 3 million people annually.

Kenneth Miller

Patricia Ohtake

Jim Smith

Hallie Zeleznik

Jim Smith, PT, DPT, recently attended an APTA meeting. Seated next to him was another PT, a woman in her 30s who ran in marathons. She'd recently been pregnant, and he asked whether she'd returned to running and when she planned on running her next marathon. She responded that she hadn't resumed running. In fact, she told him she was so tired she could barely walk up a flight of stairs. Plus, she described other symptoms, such as forgetfulness. During the conversation, she'd mentioned that she'd spent five days in the ICU.

Smith, a professor of physical therapy at Utica College in New York, told her, "You've got PICS" — short for post-intensive care syndrome. She responded disbelievingly, "No. That's not possible." But not only was it possible, it turned out that Smith was right. The stereotypes surrounding PICS — among them that only patients who are elderly or deconditioned experience the syndrome — are myths. Yet those widely held beliefs, even among health care providers, often delay diagnosis and treatment.

More than 4 million adults annually survive a stay in intensive care units. Most — an estimated 70% — experience PICS, according to a paper published in 2020 in PTJ — Physical Therapy & Rehabilitation Journal, "Home and Community-Based Physical Therapist Management of Adults With Post-Intensive Care Syndrome." That means that "every year, 3.5 million people are being discharged home with physical, mental, and cognitive impairments," explains Patricia Ohtake, PT, PhD. She is associate professor in the Department of Rehabilitation Science within the School of Public Health and Health Professions at the University of Buffalo.

And yet, Smith admits, "We really don't know what causes it. The loss of function extends far beyond that experienced by someone with the same amount of inactivity but who was not critically ill." Certain conditions seem to exacerbate PICS. Smith says, "People with sepsis while critically ill have higher rates of PICS, especially the physical effects."

The syndrome manifests itself in three separate domains. The first involves physical complications such as weakness, pain, and pulmonary function, decreased exercise capacity, delayed return to driving and employment, and respiratory problems and muscle weakness.

"We really don't know what causes it. The loss of function extends far beyond that experienced by someone with the same amount of inactivity but who was not critically ill."

— Jim Smith

The second domain deals with cognitive symptoms. These include problems with attention, impaired memory, reduced mental processing, and difficulty organizing and completing tasks.

The third domain encompasses mental health conditions including depression, anxiety, posttraumatic stress disorder, and sleep impairments.

The term PICS was introduced only a decade ago to raise awareness among ICU and post-ICU clinicians, patients, and families about problems that commonly occur in survivors of critical illness. PICS was defined as "new or worsening impairments in physical, cognitive, or mental health status arising after critical illness and persisting beyond acute care hospitalization." PICS is not a specific disease. Rather, it's a group of problems. And while there are some theories, no one is sure what causes PICS.

In fact, finding the cause is not even the focus of current PICs research. Smith explains, "We have moved away from looking for a true causation. Twenty years ago, we had described the profound weakness, such as ICU-related myopathy. We'd been concerned about the relationship between certain types of medication, such as

corticosteroids. Now we're seeing a syndrome, not a distinct pathology attributable to nerves or muscles. Collectively, we can understand PICS by looking at it as a syndrome that reduces the ability to perform activities of daily living."

On the other hand, Smith adds, there's a great need for evidence-based research that informs effective intervention. He says, "Much of the evidence tells us that many of the interventions have not been effective. But many of those interventions did not involve physical therapy. We need more evidence to shape our interventions."

PICS Myths

One point that all the PTs interviewed for this article were anxious to make is that, despite its name, PICS is not a syndrome that's treated primarily in a hospital. Hallie Zeleznik, PT, DPT, explains, "One of the most important things PTs need to know is that PICS is not a condition that's just managed in acute care. While there are some things that can be done on the acute care side, it's a posthospitalization condition that can be managed by community providers." Zeleznik is on the clinical faculty in the University of Pittsburgh's School of Health and Rehabilitation Sciences.

The paper published in 2020 in PTJ — Physical Therapy & Rehabilitation Journal addresses this point: "Following services in an ICU, the majority (approximately 85%) of people are discharged home from the acute care hospital. While ICU follow-up clinics are becoming available, the majority of people returning home will not have access to the specialized services offered by these clinics." (Smith, Zeleznik, and Ohtake are among the paper's authors.)

How prevalent is the myth that PICS primarily is addressed at the hospital level? Ohtake says, "A lot of PTs see the words "intensive care" and think, 'Acute care. That doesn't apply to me.' When we've presented on PICS at APTA conferences, we've filled the room. But when we ask how many of the attendees are in outpatient practice, only 10 or so raise their hands. We want to get the word out to outpatient PTs and home health PTs. A lot of these patients will receive home health services. We want health care providers to know what to look for."

"One of the most important things PTs need to know is that PICS is not a condition that's just managed in acute care. While there are some things that can be done on the acute care side, it's a posthospitalization condition that can be managed by community providers."

— Hallie Zeleznik

The Relationship Between PICS and COVID-19

The symptoms and effects of PICS may sound familiar to another condition that is under current discussion: what's being called long haul COVID-19, long COVID-19, or, more scientifically, post-acute sequelae of SARS-CoV-2 infection or PASC. They are different: PICS — a constellation of conditions affecting physical condition, cognitive functioning, and mental health — is distinct from a disease caused by an identifiable virus, in this case COVID-19.

Yet there are some similarities. A PTJ article published in July 2020, "Home and Community-Based Physical Therapist Management of Adults With Post-Intensive Care Syndrome," observed, "While the literature has not revealed the effect on people surviving the COVID-19 pandemic, it is reasonable to expect that those experiencing critical illness will develop the problems associated with PICS." Patricia Ohtake, PT, PhD, Hallie Zeleznik, PT, DPT, and Jim Smith, PT, DPT, were among the paper's authors.

Further, it appears that PICS and the long-term effects of the coronavirus may coexist within patients. Ohtake explains, "The symptoms of long-hauler survivors of COVID-19 are different from PICS, but a coronavirus patient who was in the ICU likely has PICS layered on top of the coronavirus effects."

That point was made in the PTJ paper. It observed, "Although little is known about the long-term physical consequences of COVID-19 infection, those who require intensive care or mechanical ventilation are at high risk for developing post-intensive care syndrome. PICS is a commonly observed phenomena within ICU survivors of all ages."

Zeleznik says, "COVID-19 and PICS — that's something I'm trying to figure out in my personal practice right now. The knowledge is evolving; it's going to take time and experience. I agree that post-COVID-19 syndrome does appear to be different from PICS, but why or how we might deal with it is uncertain. I agree that COVID-19 patients who have spent time in the ICU have PICS symptoms. But a COVID-19 patient may have been treated in the community, and they're showing long-term effects."

And Smith admits, "There's a lot going on that makes me suspicious there are close parallels between long haul COVID-19 and PICS. They include fatigue, decreased aerobic capacity, and loss of breath. Others are dysphasia and swallowing disorders. The real challenge for PTs will be prioritizing functions. That requires a lot of decision-making by us."

> "PICS is not a syndrome found exclusively in patients who are old or frail. That's because PICS is triggered by a stay in the intensive care unit, not by a person's age."
>
> — Kenneth Miller

Another myth is that PICS primarily affects older patients. Kenneth Miller, PT, DPT, an assistant professor at the University of North Texas and a board-certified clinical specialist in geriatric physical therapy, seeks to correct that belief. "PICS is not a syndrome found exclusively in patients who are old or frail," he says. "That's because PICS is triggered by a stay in the intensive care unit, not by a person's age." Ohtake points out that the average age of a person in intensive care units is the late 40s.

That incorrect assumption regarding age, in turn, may lead to less than optimal treatment. Miller explains, "Most of our younger patients are not Medicare age. They have private insurance." Seeing that instead of Medicare, a therapist may not consider that the patient could have PICS. And even when a therapist recognizes PICS in a younger patient, they might assume the patient will recover on a more typical trajectory for whatever condition the patient is being treated for. "The PT, therefore, may develop a plan of care that's more aggressive than the patient with PICS can handle," Miller says.

The Financial Impact of PICS

Beyond the impact of potentially poorer outcomes, the financial impact of PICS on younger and middle-age people may be greater than on the elderly. The PTJ article delves more deeply into the effect of PICS on employment and income, citing a recent meta-analysis of jobless rates among people who were previously employed before critical illness. Approximately 67% were jobless up to three months after hospital discharge, 40% up to 12 months after discharge, and 33% up to 60 months after discharge.

Physical ability to perform on the job is not the only hindrance from returning to work for people with PICS. According to the PTJ study, during the first year following intensive care, approximately one-third of survivors were unable to return to driving, limiting their ability to return to work and attend outpatient appointments.

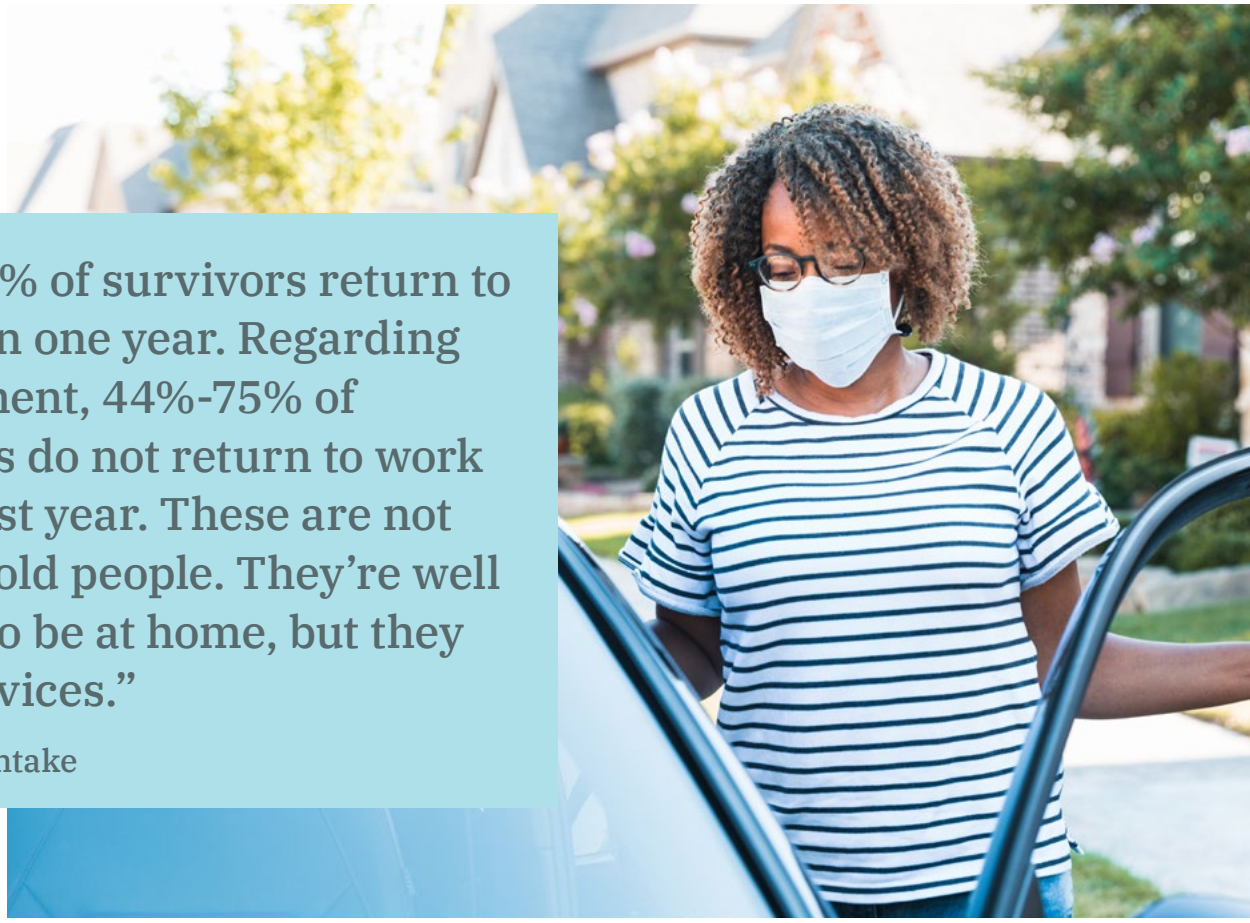
"Those who do return to work often experience ongoing challenges including subsequent job loss, change in occupation, or decreased work hours. Notably, delayed return to work contributes to substantial lost earnings for critical illness survivors and their families. This period of unemployment was also associated with a shift from private medical insurance to government-funded health care coverage," the PTJ study said.

PICS and the Family

Because PICS affects not just the person with the syndrome but their entire family, a term has been coined for those family members: PICS-F, the "F" standing for "family." Zeleznik explains: "Just like we have PICS, we also have PICS-F. We know that family members or caregivers can experience their own problems, including anxiety, depression, and PTSD. Caregiving is stressful, both physically and emotionally. Often the person in that role has to change their other roles in the home setting or alter their relationships. And caregivers often don't take care of themselves."

Ohtake adds, "They went through the trauma of not knowing if the patient would live or die. Then they have to manage the family. It's overwhelming."

Smith, too, addresses family dynamics and the stress involved. "We know that PICS places an extraordinary burden on families. People with PICS are eager to get home. Then they need help with meal preparation, getting dressed, toileting, and other functions. We have to be sensitive to those factors after patients recover from critical illness."



> "Only 60% of survivors return to driving in one year. Regarding employment, 44%-75% of survivors do not return to work in the first year. These are not 70-year-old people. They're well enough to be at home, but they need services."
>
> — Patricia Ohtake

He also suggests that Choose PT, APTA's consumer-facing website, contains patient education resources on PICS. "They're great resources for PTs to use in working with patients and their families," Smith says.

Slow Recovery

Recovery from PICS can be slow. Ohtake says, "We don't know how long people will continue to recover. In the first year, we see quite a bit of improvement, but recovery can take five or 10 years." She adds, "I'm not aware of anyone saying it ends at a particular point." The PTJ article cites a study that found approximately 60% of PICS survivors experience continued cognitive problems after one year. Mental health impairment is found in more than 20% of patients at the one-year mark.

Survivors of critical illness commonly require inpatient health care resources, the study finds. For instance, in one study among people surviving for at least two years after acute respiratory distress syndrome, 80% had at least one inpatient admission to a skilled nursing or rehabilitation facility, or readmission to an acute care hospital, during the two-year follow-up.

Even when PICS survivors don't require readmission, the lingering effects can be substantial. The PTJ article cites reduced performance in such areas as exercise capacity, gait speed, and balance, as well as continuing impairment of muscle strength and the respiratory system. Other abilities — particularly, bathing, dressing, and continence — are affected long term. Activities of daily living and instrumental activities of daily living both are affected.

Ohtake says no single IADL is predominantly lost. "Use of transportation is one; only 60% of survivors return to driving in one year. Regarding employment, 44%-75% of survivors do not return to work in the first year. These are not 70-year-old people. They're well enough to be at home, but they need services."

A Community Problem; a Community Solution

The PTJ article asserts that "Home health care and outpatient physical therapists are ideally positioned to address the reduced functioning and participation associated with PICS." Nevertheless,

the article continues, PTs should coordinate services with an interprofessional team that ideally includes the PT, primary care physician, occupational therapist, speech language pathologist, pharmacist, mental health counselor, and social worker. Coordination with other professionals — such as physiatrists, specialist physicians, psychologists, and cardiopulmonary physical therapists — also may be beneficial.

The PTJ article identifies different models for the delivery of services. One is a community-based ICU follow-up clinic. The goals of these clinics are to prospectively identify impairments and create an individualized plan for people. As the PTJ paper explains, "Identification of physical, cognitive, and mental health impairments in an interprofessional setting, with providers including a physical therapist, assists in the establishment of a multifaceted care plan for the unique person."

A second model uses home health and outpatient physical therapy clinics. While ICU follow-up clinics are emerging in the United States and internationally, the PTJ article acknowledges that many people returning home after hospital discharge will not have access to them. For those patients, home health care and outpatient physical therapists — located in most communities — "are ideally positioned to provide and coordinate rehabilitation services for people with PICS."

Miller adds a caveat to that second model, however: "Home health care still has a long way to go. Many in home health still don't know about PICS." On the other hand, he says that generally other health

care disciplines are even less aware of it. For that reason, the PTJ article suggests that physical therapists may need to be the drivers for informing members of the health care team about "the breadth of physical, cognitive, and mental health problems" experienced by someone with PICS.

What PTs Can Do

An important role for PTs involves identifying PICS patients. One significant clue is virtually hiding in plain sight: the words "intensive care." If a patient history shows the person has spent time in the ICU, it should alert the PT to consider PICS.

Miller gives this example: "I saw a patient in his home. He'd been complaining of pain in his hip and had been diagnosed as having osteoarthritis. I asked him the typical history questions. He'd been in the hospital for several months and had a long hospitalization for cardiac problems. He'd spent time in the ICU and was basically bedbound. He was depressed. He was oriented but had forgetfulness that cleared up over time. Not recognizing that he had PICS, we worked with the patient for multiple episodes of care. It took about nine months to get him back to his prior level of function. Had I known about PICS, my organization and I could have been more prepared to take care of him immediately."

> "When there's a name to the syndrome, and when there's validation, it helps tie things together and helps the individual identify what they're experiencing."
>
> — Hallie Zeleznik

Incidents such as those and the clear yet poorly understood linkage to the ICU led the authors of the PTJ article to suggest that "physical therapists include a screening question about ICU care for all people who have had hospitalizations, both recent and remote, due to the long trajectory of recovery. A standard follow-up question to 'Have you ever been hospitalized?' should be 'Did you require care in an ICU? If yes, how many days were you in the ICU, and were you on a breathing machine?'"

A positive answer to the ICU question should serve as a "yellow flag," warning the PT that the person has a risk for additional physical limitations, cognitive deficits, and mental health problems.

As basic as it may seem, helping the patient find an answer to "What's happening to me?" can have great benefits. Zeleznik says, "It's important for the patient and the family when the health care providers are able to provide validation that PICS and PICS-F are real. That can feed into their mental health. When there's a name to the syndrome, and when there's validation, it helps tie things together and helps the individual identify what they're experiencing."

Donald E. Tepper is editor of APTA Magazine.

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Health Care Headlines

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CMS Moves To Make Prior Authorization Decisions Speedier and More Transparent

Prior authorization requirements, never a favorite among health care providers, may be getting a little easier to deal with under Medicaid, the Children's Health Insurance Program, and qualified health plans on federal health insurance exchanges. A final rule from the U.S. Centers for Medicare & Medicaid Services requires beefed-up technology, the publication of payer metrics on prior authorization decisions, and time limits on how long payers can take to respond to prior authorization requests. The changes are aimed at creating more transparency in the system and making prior authorization operations more consistent with interoperability rules put in place in 2020. Some requirements take effect in 2023 and others in 2024.

Legendary Physical Therapist Advocate Clem Eischen Dies

Widely credited as instrumental in the inclusion of outpatient physical therapists in Medicare Part B payment, Clement "Clem" Eischen, PT, has died. He was 93. In the mid-1960s, Eischen helped to spearhead advocacy that resulted in outpatient PTs being included among providers qualified to receive payment under Medicare Part B. Eischen led efforts to raise funds for the needed lobbying efforts, helped develop the advocacy strategy, and testified before Congress to achieve one of the profession's most significant wins. In addition to being a passionate advocate for private practitioners, Eischen was also an inventor: He developed the Pron Pillo, a device still used to help make patients more comfortable on flat-top treatment tables.

Researchers Say Frequency, Duration of Acute Care Therapy Improves COVID-19 Outcomes

A study of 312 patients hospitalized for COVID-19 has found that increasing the amount of physical therapy patients receive during acute care results in higher mobility levels at discharge and increased odds of being discharged to home versus a care facility. Researchers found that each additional 10 minutes of physical therapy was associated with improved mobility and activity levels at discharge. Authors of the study believe their findings make the case that physical therapy "should be an integral component of care" for patients hospitalized with COVID-19, but they acknowledge that the interventions need to be carefully implemented to protect against spread of the virus. The study was published in PTJ — Physical Therapy and Rehabilitation Journal.

Study: Cardiac Rehab Improves Endurance in Survivors of Stroke

Physical inactivity among people who have had a stroke is a problem, with estimates that nearly 60% of them fail to meet activity guidelines and thus face increased risk of another stroke and cardiovascular disease. But a study of people poststroke published in the Journal of the American Heart Association uncovered a possible way to counter that trend: participation in a standard cardiac rehabilitation program. Researchers found that after a 12-week program, participants recorded significant improvements in cardiac endurance and overall health status that were still present six months later, along with improved attitudes about ongoing physical activity. Authors believe that the findings point to the use of cardiac rehab as a new referral option for individuals poststroke.

APTA Leading The Way

Here are a few recent examples of the association's efforts on behalf of its membership, the profession, and society.

New CPG on Hip Fracture Focuses on PTs

Physical therapists now have the first clinical practice guideline on hip fracture designed specifically for the profession, thanks to a recent collaborative effort between the Academy of Orthopaedic Physical Therapy, APTA Geriatrics, and APTA national, which provided funding and development support. The new CPG, focused on low-energy fractures of the proximal femur among adults 65 and older, includes recommendations that span the entire episode of care, as well as guidance specific to postacute and postoperative phases of care. The CPG is available to APTA members through the association's "Evidence-Based Practice Resources" webpage.

Find the full text of these stories and more at **apta.org/news**

VA Increases Pay Levels for PTAs

After leaving them untouched for nearly 25 years, the U.S. Department of Veterans Affairs has adopted new qualification standards for PTAs that includes opportunities for higher-level duties and a significant boost in pay scales. The changes, advocated for by APTA since 2017, are a significant step in better recognition of the value of PTA positions within the Veterans Health Administration, and they could make VA a more competitive employer. Under the new standards, the full PTA performance level is set at a GS-8 grade level (starting at $41,723) with opportunities to reach GS-10 (capping at $65,976). Previously, GS-8 was the highest performance level available to PTAs, although few were working at that level.

APTA's Registry Again Receives Key CMS Designation

For the fifth year in a row, the APTA Physical Therapy Outcomes Registry was approved by the Centers for Medicare & Medicaid Services as a qualified clinical data registry, or QCDR. This designation means that participating physical therapists can submit Merit-based Incentive Payment System reporting data to CMS directly from the registry. QCDR approval recognizes APTA's demonstrated expertise in quality measure development. Even PTs who don't participate in MIPS can benefit from the registry's analytics and benchmarking capabilities. By directly integrating with over 15 electronic health records systems, the registry enables all PTs to leverage their existing EHR data to track and benchmark outcomes, apply dashboard insights to improve quality of care, and demonstrate the value of physical therapist services to payers and providers.

Student Focus

Students are frequent contributors to our blog at apta.org, and most of their essays hold interest for everyone in the profession. The following is excerpted from a 2020 post by Lydia Owsley, SPT, a student at the University of Saint Mary in Leavenworth, Kansas, who competed in the 2016 Olympic Games in the Women's 10-meter air pistol event.

Lydia Owsley, fourth from left, with the 2016 U.S. Olympic team. CREDIT: USA SHOOTING.

My Olympic Journey Has Made Me a Better PT Student

Being part of Team USA's Shooting Team and training for the Olympic games are in many ways similar to joining the physical therapy profession, navigating physical therapy school, and demonstrating what we as physical therapists embody.

Team PTs for Team USA

Although interacting with some of the top athletes in the world from many disciplines was humbling and incredible, that was not what ultimately led me to pursue a career in physical therapy. It was my relationship with our team physical therapists.

The team PTs helped us through training and during competition. Whether it was an injury or just stiffness from long plane rides of international travel, they were equipped and prepared. I benefitted from being in their care but also was intrigued by their treatment approaches. I also found it interesting to see how other countries' travel PTs had their own ways of treating their athletes. These experiences led me to research physical therapy as a career option.

The Traits of an Olympian and a Physical Therapist

When you compete at a level as high as the Olympic games, forming relationships and learning how to effectively communicate with your teammates and coaches is crucial to being a successful athlete. These same skills are critical to becoming a great physical therapist. I have yet to experience my first clinical rotation, but, so far, my ability to communicate and relate to others has helped me form friendships with my peers and faculty, and better explain procedures, techniques, and exercises that I'll use with patients.

Along with communication, interpersonal skills such as teamwork, responsibility, dependability, leadership, motivation, and patience are key traits that Olympians must have to compete at the highest levels of their sport. These skills also are essential to becoming a physical therapist.

Like training for the Olympics, attending a DPT program is a multiyear effort that requires hard work, determination, and self-motivation to reach an ultimate goal.

However, the most important lesson my journey to the Olympic Games taught me was that I'm not doing this for self-gain, but to help others in need.

Physical therapists support, encourage, care for, and help those in need. As a profession, we are selfless, hardworking, caring, and empathetic. I have learned the importance that all these traits play in life, whether in the Olympic Games or in school and, ultimately, in my chosen profession.

Read the full story from Aug. 11, 2020, at **apta.org/MyOlympicJourney**

APTA Member Value

APTA membership provides opportunities to strengthen your expertise and build your unique communities.

Find this and more at apta.org/your-career/financial-management/financial-solutions-center

APTA is committed to giving you value from your investment in association membership. One benefit that could give you a direct return on that investment is the APTA Financial Solutions Center.

Seven Resources To Help You Navigate Your Finances

In school and in life, many people never receive formal education or training for managing their finances. April is Financial Literacy Month — what better time to assess where you are and develop strategies for the future? The APTA Financial Solutions Center has customizable resources to help you. Here are seven popular offerings from the center's financial education platform, Enrich:

1. **Your Money Personality.** Start with this assessment to allow Enrich to personalize your experience based on your spending, saving, and investing philosophies and goals.
2. **Budget worksheet.** The simple worksheet can help you get started and see where your money is going, and where you might be able to adjust.
3. **Paycheck analyzer.** Are you a new graduate or considering returning to work after a hiatus? Use the paycheck analyzer to estimate your net pay after taxes and other benefits deductions.
4. **COVID-19 guidance.** The pandemic continues to challenge not only physical health but financial health as well. Check out a coronavirus guide with tips and advice for staying financially well. And study up on financial fraud to avoid scammers who are using the pandemic to target fears and take your money.
5. **Student debt resources.** A 2020 APTA report highlighted the serious impact of debt taken on by PTs and PTAs, largely from student loans. Get an 18-minute overview on federal student loans and repayment options, run your numbers through a loan repayment analyzer, and glean insight from several online courses and articles.
6. **Banking beyond checking and savings.** Look beyond your basic bank accounts and see what other products financial institutions may offer.
7. **Behavioral finance resources.** Finance is expenses and income, yet surprising things may influence your spending behaviors. Social media, availability on the shelves (think toilet paper), and your wish to help family and friends are just a few influencers that manipulate how you spend. Understand how your day-to-day behaviors affect your spending, and avoid sabotaging yourself.

Build your financial education and explore topics you may not have considered yet such as starting your retirement fund, setting up an emergency fund, or even learning what's involved in estate planning. There are startup guides, webinars, videos, calculators, and infographics to help you plan.

In addition to financial education, the Financial Solutions Center also offers information on student loan refinancing (with special discounts for APTA members) and finding a certified financial planner.

It's Financial Literacy Month

Get ahead with APTA's Financial Solutions Center, a member benefit designed to help you:

Build Your Financial Knowledge

Get free online access to customized learning covering student loan debt repayment options, loan consolidation, budgeting, and more.

Refinance Your Student Loan

Eligible PTs and PTAs receive a 0.25% interest rate discount as well as a discount for electronic funds transfers through Laurel Road.

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APTA
American Physical Therapy Association

It's our centennial, and here are some of the ways we're celebrating.

APTA Centennial Lecture Series

The APTA Centennial Lecture Series features recognized leaders on topics in clinical practice, practice management, payment, and innovation. We're offering one course every month from March to October, with earlier courses being hosted virtually and later ones occurring in person at APTA Centennial Center in Alexandria, Virginia. (We will monitor health recommendations related to COVID-19, and dates and formats may change if needed to ensure everyone's safety. Check the centennial webpage for updates.)

Recordings will be available if you miss a live session, but to earn CEUs for the course you must attend a live broadcast. Several viewings are available for each lecture, so you can choose one most convenient to your schedule. Here's what's coming up soon:

- April: Pain Science and Management: A Series of Hot Topics (live virtual event April 9-10), with lecturer Adriaan Louw, PT, PhD.
- May: Practice Management: Balancing Compliance and Profit (live virtual event May 21-22), with lecturers Lynn Steffes, PT, DPT; APTA staff Kara Gainer, JD; and a representative from the Centers for Medicare & Medicaid Services.

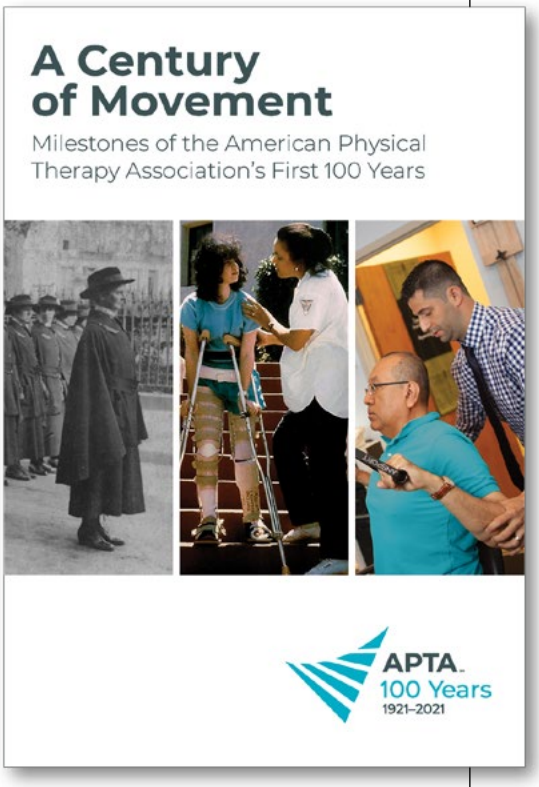
The recording of the March lecture also is available: Rehabilitation in Emergencies, with lecturer Pete Skelton, PT, MSc. Go to **centennial.apta.org/celebrate** to register or learn more.

Find out more about APTA's centennial at **centennial.apta.org**

100 Milestones, 100 Years

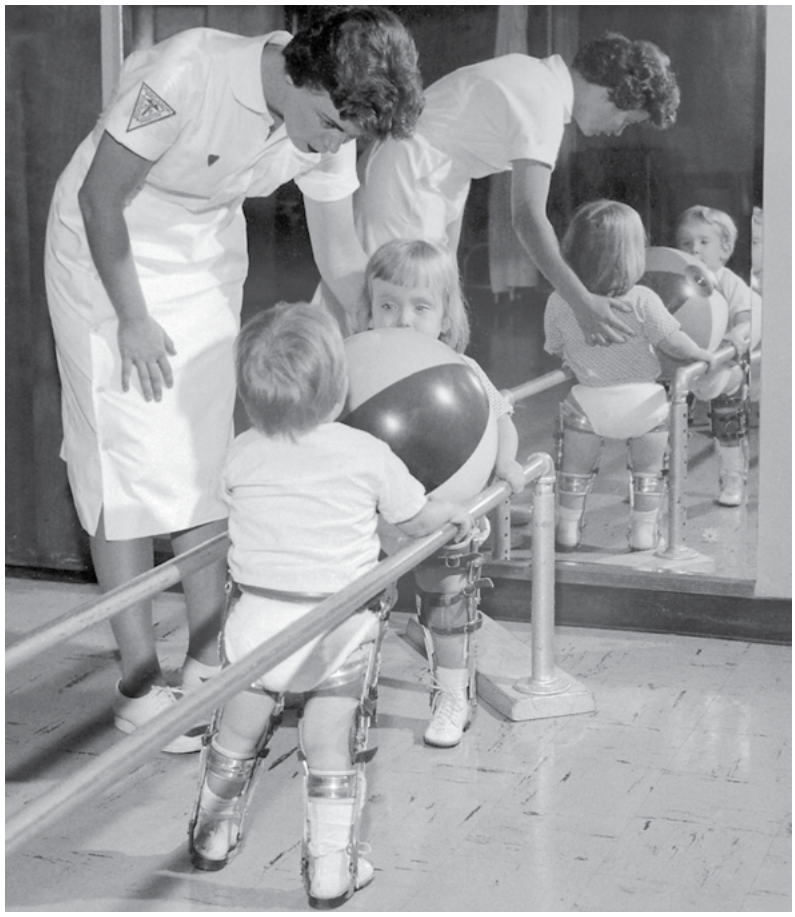
See which events, accomplishments, and noteworthy actions in APTA's history made the top 100 list in APTA's book "A Century of Movement: Milestones of the American Physical Therapy Association's First 100 years."

Copies of a limited hardcover edition are for sale in the APTA Store at store.apta.org, and you can access an interactive timeline of all 100 milestones at centennial.apta.org.



This Month in APTA's History

Here are a few notable dates in April from APTA's past 100 years.



A physical therapist assists two children with polio as they hold on to a rail while they exercise their lower limbs. CREDIT: 1963, CDC/CHARLES FARMER.

On April 12, 1955, the National Foundation for Infantile Paralysis and Jonas Salk held a press conference at the University of Michigan's vaccine evaluation center to announce that the polio vaccine had been developed. Lucy Blair, then APTA's polio coordinator, attended the press conference. In the early 1950s there were more than 20,000 cases of polio each year. After the polio vaccine was introduced, the figure dropped to about 3,000 per year by the 1960s.

In April 1977, the Council on Postsecondary Accreditation granted APTA recognition as an accrediting agency for physical therapy education programs in the United States. APTA had sought to accredit physical therapy programs after its arrangement with the American Medical Association's Council on Medical Education, which had been the sole accrediting body, became counterproductive.

On April 25, 2017, Washington became the 10th state to sign the Physical Therapy Compact, allowing the compact to become operational.

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Things to Think About

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/ By Yaffa Liebermann, PT

Reminiscences of a PT and mother.

An On-the-Nose Career

Liebermann in outpatient practice in 1969.

Yaffa Liebermann, PT, is CEO of Prime Rehabilitation Services and Mobile Therapy Services, providing services in subacute nursing homes and in individuals' homes in New Jersey. She is a board-certified clinical specialist in geriatric physical therapy and author of the books "Stroke Restoration: Functional Movements for Patients and Caregivers," "I Stand Up Straight: Poems and Exercises," and "Rachel, Pedro and Friends Stand up Straight: An Activity book." You can reach her at yaffa@primerehab.com.

As a teenager growing up in Israel, I was grateful to my parents for supporting my desire to find a career that would help society. My mother explored the options in and around our village, looking for a profession that would honor my desire to serve and do something I'd enjoy.

During my senior year in high school, she connected me with a physical therapist student. As I listened with rapt attention to her description of her classes and her clinical experiences, and of the joys of helping patients recover from illness and injury through movement, I was hooked. It was a defining moment in my life, because I knew I was destined to become a PT.

I chose the school of physiotherapy at a hospital affiliated with Tel Aviv University. The 10-member admissions committee included PTs, nurses, and physicians. It was intimidating! But I forced myself to overcome my shyness and look into their eyes. One question they asked me was, "Why do you want to be a PT rather than a nurse?" My reply was, "A nurse must precisely follow the doctor's orders. A PT has the prescription to treat but can use her training and judgment to tailor a plan of care to the patient's individual needs and goals."

To this day I don't know where I found the courage to say that. When, decades later, I read the APTA House of Delegates' position on autonomous physical therapist practice — stating in part that "Autonomous physical therapist practice is characterized by independent, self-determined professional judgment within one's scope of practice, consistent with the profession's Codes and Standards and in the patient's/client's best interest" — I thought to myself, with a bit of pride, "I grasped this concept even before I entered the profession!"

"I've always pushed them to do a little bit more than they may think is possible in that moment. When they're successful, it builds their confidence along with their body."

On my first day of PT school, one of my teachers said something that stuck with me: "If your patient leaves the session without having been challenged in such a way that he or she is tired, you have failed that session." I've taken those words to heart throughout my career. It's not a matter of no pain, no gain. Rather, while taking into account the needs and abilities of each individual patient, I've always pushed them, as appropriate, to do a little bit more than they may think is possible in that moment. When they're successful, it builds their confidence along with their body.

As I began my career, each patient posed a new challenge for me: to evaluate him or her correctly, analyze my findings thoroughly, create an optimal

Defining Moment spotlights a particular moment, incident, or case that either led the writer to a career in physical therapy or confirmed why he or she chose to become a physical therapist or physical therapist assistant. To submit an essay or find out more, email aptamag@apta.org.

plan of care, and then work together to ensure steady progress. It was a role that I cherished from the start. From the very beginning I loved treating patients. In fact, I fell in love with one of them — my husband of 50 years now, who was under my care when we both served in the Israeli army.

I thought about my patients night and day — ways that I might improve their treatment and accelerate their progress. I discussed my learning experiences around the dinner table with my husband and four children — of course, shielding the patients' identities. One family experience in particular comes to mind as another defining moment in my physical therapy career.

Oren, our son, was 3 years old at the time. I was escorting him to prekindergarten. We were walking through a garden on steppingstones that were bordered by rocks with sharp edges. I was walking ahead of Oren with his twin sister when suddenly someone called out that my son had been injured. I turned around and I saw Oren with blood at the base of his nose. I cleaned his face and applied a small bandage. Later that day, Oren ran to play as if nothing had happened.

As a PT, though, I was concerned. The cut was minimal, but he'd fallen on a sharp stone, striking the intersection of facial bones: frontal, nasal, and frontal process of the maxilla and the lacrimal. I knew that his bones and skull were still developing. I didn't voice my worries to anyone, but I remained watchful as my son grew over the course of the next several years.

By the age of 9, Oren's nose was slightly upturned. It looked to me as if something held together the

Below: The poster of a tiger saying "Trust me" was a gift in 1980 from a patient with balance deficits who often heard Liebermann say those words as she encouraged them to practice transfers. Right: Liebermann as a PT student in 1965.

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Yaffa and Oren Liebermann at a 2017 book-signing for Oren's book "The Insulin Express." (Photo credit: Joshua Crompton)

root of his nose, his forehead, and his eyes in a bit of a vise grip. I believed this was a result of the fall six years earlier. As a physical therapist and his mother, I needed to find a solution before considering surgery, while Oren was young and still growing.

I took courses in myofascial and craniosacral release. While they proved helpful with my patients — helping release tight back muscles, treat headaches, and release tension in the shoulder girdle — they didn't help me with Oren. But when I attended a course, Muscle Energy Techniques To Correct Dysfunction of the Pelvic Region, taught by Sharon Giammatteo-Weiselfish, PT, PhD, I immediately knew I'd found someone who could help.

During a break in the course, I told her my son had fallen when he was 3, and that now, at age 9, it looked as if something was pinching the base of his nose. As I demonstrated on my own nose, she said, "He probably has an upper-jaw indent. His sternum likely is impacted as well. The falx cerebri is holding all the structures together tightly."

I was stunned that someone could so deeply analyze the situation just from my description. I asked her to see Oren at her practice in Massachusetts. There, she conducted a comprehensive evaluation and sent me home with instructions on how to hold Oren's head while conducting movement exercises.

I did as instructed. I applied muscle energy combined with craniosacral release. Oren was relaxed as I worked with him. It was easy to do. We repeated the procedure several times over the course of the next several weeks.

For some time after that I asked my son daily if he detected any change in his appearance, although I knew the process would be gradual and perhaps visually imperceptible. He kept saying no and got tired of my asking. So I stopped.

About a year later, though, I asked him again. To my great shock, my quiet 10-year-old child volunteered, "My nose has opened since those treatments, and I can breathe better now. I never have to breathe with my mouth open anymore."

I'd never known that Oren was having difficulty breathing! My only concern had been aesthetics. In that that moment, though, I knew I'd not only prevented a possible surgery for my son, but I'd helped his nose grow to good composition and allowed him to breathe easier.

(Oren is now a CNN Pentagon correspondent. He was diagnosed with Type 1 diabetes at age 31 while circling the world and wrote "The Insulin Express," an inspiring book describing his travels while managing the disease.)

This was testament to the power of physical therapy, and maternal validation of the wisdom of my decision to become a PT 53 years ago. Can there be a greater happiness?

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* Data on file djoglobal.com/rpw

1 Cristina d'Agostino M et al. Shock wave as biological therapeutic tool: From mechanical stimulation to recovery and healing, through mechanotransduction. Int J Surg. 2015 Dec;24(Pt B):147-53.

2 Rompe JD et al. Home Training, Local Corticosteroid Injection, or Radial Shock Wave Therapy for Greater Trochanter Pain Syndrome. Am J Sports Med. 2009 Oct;37(10):1981-90

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