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Register: PhysicalTherapy.com/NeuroVC

After the virtual conference is completed, courses will be made available as recorded webinars.
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More and more actors with disabilities are appearing in TV shows and movies. Physical therapists are playing a supporting role.

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What is nice about engineer physical therapists is that they can talk two languages without an accent: They can talk the engineering language and the movement disorder pathophysiology language, seeing both sides of the equation. In that regard, these graduates are going to be highly sought-after, highly unique individuals.

Julius Dewald, PT, PhD, in “Institutionalizing Inventiveness” (Page 42)
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The Shared Pain of Patients and Clinicians: Finding the “Third Space” Can Bring Healing

What do you feel when you see the clinic?

When I first became a physical therapist, I was excited to see my clinic, if a bit overwhelmed. Throughout my first year I felt a preemptive tiredness, as if I knew that I would be pouring in energy at the risk of feeling exhausted. At an outpatient pain medicine clinic, I have met many people with low expectations for physical therapy – or any other intervention – because they have seen it all before. I thought I could be different. I thought that my blend of knowledge, skills, and passion could offer new value. Maybe it does, but it is not enough for everyone.

After hearing stories from patients, I think about how they feel when they come to any health care provider’s office. They are afraid of being judged, angry that they jumped through hoops just to get help, ashamed that they cannot fix their problems themselves, sad that they do not feel like themselves, and worried for their future. So, now when I see the clinic, I feel that I am walking into darkness. I step into their pain, if only for a few minutes, so that we might find a path to light. I do not have all the answers, but my patients and I can pool our knowledge, skills, and experience so that we can come closer to joy.

After realizing the beauty of sharing the experience of pain, I reflected on how I ended up feeling this way, so that others could do the same. Three fundamental ideas helped me.

First, I needed to find my “why.” One day when I was riding my bike to work, a thought overwhelmed me: I want to liberate humanity from pain so that we can all find joy in life. I had just read the book “Find Your Why” and felt inspired to find my purpose. I used to see myself as a “wannabe liberator” – a hero. I now see the foolishness of that idea. We are interdependent in our pursuit of happiness.

Second, I learned to listen to the narrative. If there is one tragedy of our current health care system, it is that patients’ stories remain unheard. Sharing an experience requires us to listen, but external forces such as reimbursement, lack of appropriate insurance coverage, and so-called productivity threaten our connection with patients. We reduce them to numbers; some of our clinic visits end before they really begin. As much as I love evidence-based pain management, evidence alone cannot solve this problem. Narrative-based practice, on the other hand, is more likely to honor the humanity of patients.

Third, I learned to love myself. I criticize myself when someone’s pain persists. Sometimes this balloons to feeling a heavy shame about my ability as a PT. Even though I am trying to develop – reading articles and going to conferences about pain – I feel that some outcomes are unsatisfying. After some reflection and advice from my mentors, I now try to savor the good moments. I look to my fuel sources: my wife, my kids, friends, music, a candle, exercising, meditating, and even writing this piece. We keep the lamp burning by putting more oil in it.

Out of the Darkness

As scary as it is to walk into the darkness, there is comfort in clarity of purpose.

Years ago, I would have said that I want to be the best, most successful PT, with all the coolest letters behind my name. Those aspirations vaporized when my mother died in her sleep in August 2018, shocking my entire family. Conventional achievement lost its meaning.

Even though the pain from grief is not the same as the pain of patients, I see a part of me in them when they feel sad, angry, or afraid. When I see someone living with pain, I see someone trying to escape the darkness – just like I am. I also see my mother in patients, because she was skeptical of physical therapy, too. She walked out of one session because the PT said the exercises were “supposed to hurt” after she said they hurt too much. After this, my mother often reminded me to be kind to patients and to listen to them when they say they are hurting. She even asked me to promise that I would listen.

I promised, but I used to defend the other PT. (Mom, you know he wants you to get stronger, right? You still need to do the exercises.) Did I really absorb my mother’s story? After reflecting on my time with her, I see my error in receiving her story
A Mission-First Brand in the Making
November 2019

I just finished reading the piece in PT in Motion about the rebranding for 2020 and I extend congratulations. As a PT in private practice, I understand the importance of branding and am really excited about APTA's new logo. The traditional use of color along with the spring-forward, upward-inspiring design is truly our profession's future path. I also appreciate the changes to state chapters and sections, with the slight change in color to eliminate confusion but keep all areas aligned under APTA as a collective. The team you led with this development and change knocked it out of the park.

Christine Gillies, PT, DPT

Looking at Physical Therapy Holistically
July 2019

I like the suggestion to provide a number of practice recommendations and then ask patients which one feels best for them so that they are in charge. My mom has had a lot of soreness in her back and hips since she fell down the stairs a couple of weeks ago. We have discussed a few functional medicines and holistic approaches that she would like to try. If I were a patient, I'd probably feel more comfortable with functional medicine and holistic recommendations if I were provided the science behind why it is recommended.

James Borst

Beating Burnout
February 2019

Great article. The topic is as relevant now as it was 30 years ago. But I was a little mortified by the following statement from the article, “There’s an emphasis here on collegiality, working together to benefit patients, and having fun. They only hire what they call ‘OKGs’—‘Our Kind of Girl’ or ‘Our Kind of Guy.’”

Joseph V. Libera

Defining Moment: They Call Me the Queen of Concussions
June 2016

What is within our scope of practice as PTs, compared with visual impairments that vision therapists or occupational therapists would work on? I know there is more talk and research about vision playing a large role in toe walking, autism, etc, and a colleague of mine attended a course on vision therapy techniques for eye movements disorders associated with these diagnoses. Thank you!

Nikki Sommers

Online Comments

– and my error in receiving others’ stories for years.

I did not appreciate the shared experience of the patient and the clinician. When we see patients as “others” we deny our opportunity to make sense out of the situation or to plan our treatment together. Philosopher Edmund Husserl called this “intersubjectivity”: the concept of forming an experience through transcending the separation between each other. In an intersubjective experience, neither the patient nor the clinician is the sole expert, but together they form a collaborative team.

Now when I see the clinic, I feel honored to share an experience with others. We may suffer together, we may heal together. This power demands our respect as clinicians.

My clinic is not the only physical location where we can fulfill that promise as physical therapy practitioners. What would happen if we all saw our clinics as paths forward together – as places of shared pain and shared healing?

Zachary R. Stearns, PT, DPT
Duke University Health System
Online Comments

**Generation Rap: Veteran and Emerging Leaders Speak Out**
*December 2019-January 2020*

Expansion of scope of practice similar to the military model – as well as found in other countries such as the UK and Australia – is the only point forward. Learning about “homelessness, mental illness, complex domestic issues” is a great space for continuing education, but it’s not where we should be investing. Learning about interpreting blood tests, imaging, prescribing medication – things that would actually warrant a doctoral degree – clearly differentiate a DPT from a MPT degree. Helping to propel this profession is where we should be investing.

*Rubin Issac*

**Ethics in Practice: Matters of Respect**
*December 2019-January 2020*

Discrimination should not be tolerated by the hospital administration or the physical therapy department. The student is put in a touchy situation. Maybe he should talk to his school’s education coordinator to address these ethical concerns? The discrimination and questionable ethics need to be addressed. Going higher up might relieve the student from confronting his CI directly.

*Pamela Leitner*

This form of discrimination should not be tolerated, as Ms. Leitner suggests. I wonder why the CI didn’t assign the student to a separate therapist for the day or a few days. That would have allowed him to experience a separate perspective in that setting, and to see the very patients with whom, he made clear, he wanted to spend time.

*Sarah Pyhala*

I agree with Ms. Leitner. I would recommend to the student’s school that this particular therapist no longer be a clinical instructor for the program, and that extensive explanation be provided to the site.

*Lori Holz*

**Compliance Matters: Serving Veterans Through Community Programs**
*November 2019*

Thank you so much for posting this information. I am a veteran and a volunteer legislative advocate who moved from California to southeast Louisiana. The VA does quite well in manipulating the Maintaining Internal Systems and Strengthening Integrated Outside Networks (MISSION) Act and its guidelines to deny many rural veterans care in their community. They rely on veterans’ lack of knowledge. VA did not “grandfather” many veterans who live within the 40-mile radius into the MISSION Act. Those who live within the 60-minute drive-time limit are told they must go to the full-service VA that offers the care, although it can take well over two hours to get to the appointment, depending on traffic and time of day.

VA providers often ignore veterans’ frequency of care, or medical business that prevents the veteran from obtaining care at the full-service facility. VA has a van that leaves from the community-based outpatient clinic, but many veterans have to drive 30 minutes to get to the van. When veterans advocate for their care, VA staff become combative and intimidating, and resort to retaliatory actions. I am on dialysis as a result of VA delaying and denying my surgery for two years. This has made me a stronger advocate.

*Rhenae*

**Defining Moment: Circling Back and Moving Ahead**
*December 2019-January 2020*

Inspiring piece! I’m just about ready to submit an essay of my own journey. It’s always nice to learn that one’s not alone in terms of juggling different passions including helping others, and not always taking a straight path in life while soul-searching and discovering the best in yourself along the way.

*Mark G. Sala*

**Errata**

In the February 2020 issue’s Compliance Matters column, the map showing the status of dry needling legislation and regulation in the states was out of date. The language in Indiana’s practice act was updated in July 2019 as a result of the Indiana Chapter’s hard work to permit PTs to perform dry needling, and the state should have been placed in the “Allowed” category.
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NYL-1809882 (03/19)
How to Apply the New CQ Modifier

Here’s information on how to apply the new CQ modifier to denote when outpatient therapy services are furnished in whole or in part by a PTA.

In passing the Bipartisan Budget Act of 2018, Congress required that by January 1, 2019, the Centers for Medicare and Medicaid Services establish a modifier to indicate when an outpatient physical therapy service is furnished in whole or in part by a PTA.

Starting January 1, 2022, outpatient physical therapy services covered under the Medicare physician fee schedule that are furnished at least in part by a PTA will be paid at 85% of the applicable fee schedule rate. (A similar modifier was designated for services provided by an occupational therapy assistant, which also will be subject to the 85% payment differential.)

So that providers are prepared for 2022, use of the modifier was mandated as of January 1, 2020, for outpatient therapy providers across almost all settings—including private practices, skilled nursing facilities, home health agencies, outpatient hospitals, rehabilitation agencies, and comprehensive outpatient rehabilitation facilities. The modifier is CQ for PTAs (CO for OTAs).

The Rulemaking Process

CMS was required to adopt modifiers and define “in part” through a notice and comment rulemaking process described in the December 2019 Compliance Matters column. (See the Resources box on page 12.) In the 2019 Medicare fee schedule final rule, CMS adopted the CQ modifier.

CMS stated that the modifier must appear on the claim line of the service alongside the GP therapy modifier that identifies services furnished under a physical therapy plan of care.

The agency also finalized a de minimis standard for determining what constitutes “in whole or in part”: When more than 10% of the service is furnished by a PTA the modifier must be added.

CMS promised to include additional guidance on the modifier in its 2020 fee schedule rule, and it did so with the proposed rule’s release in July 2019. The agency offered an explanation as to how it intended to apply the de minimis standard when a PT and PTA furnished services together, versus furnishing the same service separately. APTA disagreed with CMS’ proposals and recommended alternatives.
The 2020 fee schedule final rule, released in November 2019, reflected APTA’s recommendations. CMS clarified that in determining whether to apply the CQ modifier, only the minutes that the PTA spends independent of the PT will count toward the de minimis standard. Moreover, the 10% standard will be assessed for each 15-minute unit of each procedure code, rather than for all minutes of a procedure code. CMS also described how a provider would determine whether the de minimis standard is exceeded.

**Updates to the Medicare Claims Processing Manual**

Following release of the PFS final rule, CMS revised chapter 5 of the Medicare Claims Processing Manual with regard to the new modifiers. For those practitioners submitting professional claims who are paid under the PFS, the CQ modifier applies only to services of physical therapists in private practice.

For providers submitting institutional claims and paid at PFS rates for their outpatient physical therapy services, the CQ modifier applies to the following providers: outpatient hospitals, rehabilitation agencies, skilled nursing facilities, home health agencies, and comprehensive outpatient rehabilitation facilities.

The update to chapter 5 of the manual also addresses providers to whom the CQ modifier does not apply. These include services furnished by or incident to the services of physicians or nonphysician practitioners (including nurse practitioners, physician assistants, and clinical nurse specialists) because PTAs “do not meet the qualifications and standards of physical therapists.”

CMS also clarifies in chapter 5 of the manual that the CQ modifier is not applicable to claims from providers

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**Simple Method to Apply 10% De Minimis Standard**

<table>
<thead>
<tr>
<th>Total Time Examples Using Typical Service Total Times</th>
<th>Determine 10% Standard by Dividing Service Total Time by 10</th>
<th>Round 10% Standard Next to Whole Integer</th>
<th>PTA/OTA Minutes Needed to Exceed – Apply CQ/CO</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
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<td>1.0</td>
<td>2.0</td>
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<tr>
<td>75</td>
<td>7.5</td>
<td>8.0</td>
<td>9.0</td>
</tr>
</tbody>
</table>
Compliance Matters

Resources

- Bipartisan Budget Act of 2018

- 2019 Medicare Physician Fee Schedule Final Rule
  www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/PhysicianFeeSched/PFS-Federal-Regulation-Notices-Items/CMS-1693-F

- 2020 Medicare Physician Fee Schedule Final Rule
  www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/PhysicianFeeSched/PFS-Federal-Regulation-Notices-Items/CMS-1715-F

- “Final 2020 Fee Schedule” (PT in Motion News)
  www.apta.org/PTinMotion/News/2019/11/04/PFSFinalRule/

- “Your Questions Answered” (PT in Motion Compliance Matters column)
  www.apta.org/PTinMotion/2019/12/ComplianceMatters/

- Application of PTA and OTA Modifiers in 2020 (recorded webinar and Q&A)

- APTA Medicare Physician Fee Schedule (webpage)
  www.apta.org/Payment/Medicare/CodingBilling/FeeSchedule/

- APTA 2020 Medicare Changes (webpage)
  www.apta.org/Payment/Medicare/2020/Changes/

- APTA Quick Guide to Using the CQ Modifier (downloadable PDF)
  www.apta.org/Payment/Medicare/CodingBilling/FeeSchedule/QuickGuidePTA/

not paid under the fee schedule, such as critical-access hospitals, which are paid on a reasonable cost basis.

Determining Whether the 10% Standard Is Exceeded

When the PTA independently furnishes some portion of the billed procedure code, the PT must determine whether the PTA’s time exceeded the de minimis standard.

CMS provided a table in the 2020 fee schedule final rule (see “Simple Method to Apply 10% De Minimus Standard” on page 11) that shows the minutes needed to meet or exceed the 10% threshold.

Example: The PTA furnishes 7 minutes of therapeutic exercises (97110). Then the PT furnishes 8 minutes of therapeutic exercises, for a total of 15 minutes. The de minimis standard of 10% is applied to one unit of service, as defined in the 15-minute increment. Ten percent of 15 minutes is 1.5, which is rounded to 2.0. The CQ modifier applies if the PTA furnishes at least 3 minutes of the service.

Calculation:

1.5 = 10% of 15 minutes
1.5 is rounded to the nearest whole integer (2.0)
1 minute is added = 3

Billing:

Report 1 unit of 97110 GP CQ

Rationale:

Since the PTA furnished 7 minutes (more than 3 minutes) of 97110, the CQ modifier is applied.

Correct Ordering of Modifiers

In the 2020 PFS final rule, CMS stated that it does not have central standard systems edits to reject or return claims for physical therapy services if the CQ modifier is not in the first modifier position. However, because some CMS contractors processing professional
The CQ modifier must be affixed to determining for each billed procedure code whether the CQ modifier applies. A service is considered to be furnished in whole or in part by a PTA when more than 10% of the service is independently furnished by that individual. Only the minutes that the PTA spends with the patient independent of the PT count toward the 10% standard.

The CQ modifier does not apply if all units of a procedure code were furnished entirely by the PT.

If all units of the procedure code were furnished entirely by the PTA, the CQ modifier applies.

Time spent by a PTA furnishing a therapeutic service to a patient jointly with the PT does not count toward the 10% threshold.

The CQ modifier must be affixed to the claim line of the service alongside the GP therapy modifier to identify services furnished under a physical therapy plan of care.

More Clinical Scenarios
All units of procedure code are furnished entirely by the PT. A PT administers therapeutic exercises (97110) for 30 minutes. Billing: Report 2 units of 97110 GP.

All units of the procedure code are furnished entirely by the PTA. A PTA performs therapeutic exercises for 30 minutes. Billing: Report 2 units of 97110 GP CQ.

Different services are furnished separately. A PT performs therapeutic exercises (97110) for 30 minutes with patient Y. A PTA then performs therapeutic activities (97530), for 15 minutes with the same patient. Billing: Report 2 units of 97110 GP and 1 unit of 97530 GP CQ. The rationale is that a provider may separately report on two different claim lines when the codes are different.

The PT and the PTA furnish care jointly. A PT performs therapeutic activities (97530) for 45 minutes. During that time, the therapist requires the assistance of a PTA for 8 minutes to help position the patient for the activity. Because the PT furnished all three 15-minute units while assisted by the PTA, there is no need to affix the CQ modifier. Billing: Report 3 units of 97530 GP.

The same service (timed CPT code) is furnished separately by the PT and the PTA. A PT furnishes therapeutic exercises (97110) for 30 minutes. The PT leaves. The PTA takes over the exercises for another 15 minutes. Billing: Report 2 units of 97110 GP and 1 unit of 97110 GP CQ. The rationale is that a provider may separately report, on two different claim lines, the number of 15-minute units of a code to which the CQ modifier applies and the number of 15-minute units of a code to which the CQ modifier does not apply. (The same rationale applies in the following examples.)

Example: The PTA furnishes 15 minutes of therapeutic exercises. The PT then furnishes 11 minutes of therapeutic exercises, for a total of 26 minutes of CPT code 97110, meaning 2 units can be billed. Billing: Report 1 unit of 97110 GP CQ and 1 unit of 97110 GP.

Example: The PTA furnishes 16 minutes of therapeutic exercises, and the PT furnishes 9 minutes of therapeutic exercises, for a total of 25 minutes. Billing: Report 1 unit of 97110 GP CQ and 1 unit of 97110 GP.

The same service (untimed CPT code) is furnished separately by the PT and the PTA. CPT code 97150 describes outpatient therapy services provided simultaneously by a provider to two or more individuals. It’s untimed and cannot be billed in multiple units on the claim, so one unit of the service is billed for each patient in the group. For example: The PT furnishes 15 minutes of 97150 to patients A and B. The PTA then furnishes an additional 6 minutes of
An Ongoing Effort

Since summer 2018 APTA has held numerous discussions with CMS, seeking to ensure that the agency interprets the PTA modifier/payment differential in such a way as to minimize to the greatest extent possible the policy’s impact on patients and providers. Throughout this period, the association has aggressively advocated for an exemption for rural and underserved areas.

Responding to feedback from APTA and other stakeholders on the 2019 Physician Fee Schedule (PFS) proposed rule, CMS revised its proposed definition of a service that is furnished in whole or in part by a PTA or an OTA – which had been a service for which any minute of a therapeutic service is furnished by a PTA or OTA. Instead, in the 2019 PFS final rule, CMS defined a de minimis standard for “in whole or in part” as being more than 10% of a service furnished by the PTA or OTA.

CMS provided only limited detail in the 2019 PFS final rule and stated that it would address application of the therapist assistant modifiers – and, specifically, application of the 10% standard for different scenarios and types of services – in the 2020 PFS proposed rule.

On July 29, 2019, CMS released the 2020 PFS proposed rule. APTA and other stakeholders had serious concerns about CMS’ proposed application of the de minimis standard to services furnished by the PTA. The association launched a substantial regulatory and legislative advocacy effort in opposition to this proposal. The collective advocacy resulted in CMS changing how it applies the 10% standard to services furnished by the PTA, as outlined in the 2020 PFS final rule that was released on November 1, 2019.

APTA continues to fight to protect payment wherever possible. We encourage PTs and PTAs to contact APTA at advocacy@apta.org to share how you believe the pending payment differential will affect your ability to continue to deliver quality health care.

97150 to both patients, for a total of 21 minutes of group therapy.

Billing: Report 1 unit of 97150 GP CQ for patient A. Report 1 unit of 97150 GP CQ for patient B. Rationale: 10% of 21 = 2.1. Round down to 2.0 (nearest whole integer). Add 1 minute = 3. If the PTA furnishes 3 or more minutes of group therapy, the CQ modifier applies.

Documentation

Responding to significant feedback on the 2020 Medicare PFS proposed rule from APTA and other stakeholders, CMS did not adopt proposed documentation requirements to accompany application of the CQ modifier policy. Although there are no new documentation requirements, PTs and PTAs should continue to comply with all current documentation requirements to support billing on the claim. These requirements can be found in MBPM Chapter 15 Section 220.3(E) and include the following:

“To support the number of 15-minute timed units billed on a claim for each treatment day, CMS requires that the total timed-code treatment time be documented in the medical record, and that the treatment note must document each timed service, whether or not it is billed, because the unbilled timed service(s) can impact billing. The minutes that each service is furnished can be, but are not required to be, documented. CMS also requires that each untimed service be documented in the treatment note in order to support these services billed on the claim; and, that the total treatment time for each treatment day be documented — including minutes spent providing services represented by the timed codes (the total timed-code treatment time) and the untimed codes.”

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In the Rough
A PT-patient relationship built on golf goes off course.

Physical therapists tend to be “people people” whose hands-on approach to problem-solving is both literal and figurative. PTs spend more time with their patients than do professionals in many other health care fields. They form close care partnerships with those they serve. But while PTs are taught about the importance of observing and maintaining interpersonal boundaries from the time they are students, practical guidance can be lacking.

It’s hardly surprising, then, that PTs can be caught off-guard when boundaries shift and motives seem unclear. Consider the following scenario.

Linked
Karen has been practicing for about a year at Oak Ridge Physical Therapy, the clinic at which she’d completed her final clinical assignment as a PT student. She’d jumped at the opportunity when owner Jim offered her the job, because of the practice’s strong patient-centered focus. Oak Ridge’s motto is “Professionalism with a personal touch.” The clinic routinely receives glowing reviews on social media from current and former patients.

Karen is vexed, however, by her initial inability to connect with Mike, who sustained a severe muscle strain in the mid-thoracic region in a recent car accident. He’s taciturn and expresses skepticism of physical therapy’s ability to help him. This despite the fact that his wife, Gwen, also has been receiving care at Oak Ridge for injuries incurred in the accident and, from what Karen has heard from the PT who’s been treating her, is a model patient.

“My wife and I are very different people,” is all Mike will say about Gwen’s experience at Oak Ridge. “Apples and oranges.”

Karen makes a corny joke about the “fruits” of physical therapy, hoping to raise a smile. No such luck. Mike follows her instructions during their initial sessions, but with a persistent scowl and no apparent enthusiasm. She wonders if he’s adhering to his home exercises.
exercise program, even though he says he is.

But then Mike says something during a session one day that creates an opening for a personal connection.

“Usually at this time a year I’m looking forward to hitting the links as soon as the snow’s gone,” he remarks. “With my back, how am I going to get my golf game back by then?”

“You golf?” Mike face is animated for the first time since Karen met him.

“Only since I was 8,” the PT responds with a laugh. “Got my first set of clubs the next year. Best Christmas ever.”

The ice has been broken—figuratively; it’s still February in Michigan. From that point on, Karen relates every aspect of Mike’s plan of care to golf-related goals, and she and he often talk form, strategy, and favorite courses. Mike becomes an enthusiastic participant in his recovery.

Mike occasionally makes comments that give the PT pause, however, such as, “Do you know what it’s like to have a spouse who doesn’t share your interests?” and “I’d really like to see your swing in action. I’ll bet you and I would make a great team against these two guys I know whose mouths are way bigger than their talent.” The comments aren’t really inappropriate, but there’s something about the intensity of his gaze when he says them that makes Karen a little uncomfortable.

Since Mike is making good progress, the PT suggests they reduce his visits from three times a week to two. She assumes that he’ll welcome the affirmation of progress, so she’s surprised when he responds, “The status quo is working just fine for me. Let’s keep it going, Doc.” It’s the first time that Mike—who’d once asked, “Isn’t what you PTs do kind of pseudo-science?”—has acknowledged Karen’s doctoral degree.

She doesn’t see any downside to maintaining the thrice-weekly schedule for a while longer, and she’s pleased by Mike’s determination. But Karen starts
to question his motivation when one day he presents her with “a small thank-you gift for helping me get over myself and get it through my thick skull that physical therapy really works.” She reaches into the gift bag to find a fun pair of animal-print socks similar to the kinds she often wears to work — which barely show below her pants unless she’s engaging patients in stretching exercises or otherwise moving in such a way as to expose her ankles. Karen is touched by the gift, but it suggests that Mike’s been watching her a bit more closely than she had imagined. She briefly considers declining the socks, but she likes them, they’re inexpensive, and the PT reasons that there’s nothing particularly intimate about footwear that features smiling hippos. She even makes a point of wearing the socks on Mike’s next visit to emphasize her thanks. He simply smiles and says, “I’m glad you like them.” Karen chooses to feel reassured by his low-key reaction that he hadn’t meant anything inappropriate.

Mike starts reporting a slight uptick in pain and suggests that Karen resume soft tissue work she’d discontinued as no longer being necessary. Karen believes that her timing had been right, but she’s willing to grant Mike’s request and see if the resumption makes a difference. Sure enough, after some additional soft tissue work Mike reports improvement. He attributes it to her “magic hands” and rewards her with a big tub of chocolate-drizzle caramel corn — their previously discussed mutual snack of choice when watching golf on TV.

Karen finds nothing particularly suggestive about the gift, but she’s starting to think that, ironically, Mike the one-time skeptic is getting a little too comfortable with physical therapy. She begins lessening their weekly visits and announces her plan to discharge Mike by the end of the month. She notes that Gwen already has completed her time at Oak Ridge and says, “Think about it: Once you and she are both done with physical therapy, in that sense, at least, you’ll have put the accident behind you.”

“Yeah, but what about the accident of my having married Gwen in the first place?” is Mike’s unexpected response. Karen is trying to figure out how to answer that when he adds, “The home exercise Gwen was doing while she was coming here was just about the only exercise she’s had in the past 20 years. You and she are like night and day! You’re in great shape, you care what you look like, and you know how to make a man feel good about himself. Gwen likes

Considerations and Ethical Decision-Making

Karen’s interactions and relationship with Mike reflect questionable judgment and lack of familiarity with principles of the Code of Ethics for the Physical Therapist.

**Realm.** The realm here is individual — between Karen and her patient, Mike.

**Individual process.** Karen’s inability to appropriately recognize, interpret, and frame the deepening situation with Mike reflects a lack of moral sensitivity.

**Ethical situation.** This is a problem or issue — a situation in which important moral values are being challenged. By accepting Mike’s gifts and failing to recognize that she’s been encouraging his actions, the PT has played a role in creating an uncomfortable scenario.

**Ethical principles.** The following principles of the Code of Ethics for the Physical Therapist provide guidance to Karen:

- **Principle 4.** Physical therapists shall demonstrate integrity in their relationships with patients and clients, families, colleagues, students, research participants, other health care providers, employers, payers, and the public.

- **Principle 7C.** Physical therapists shall not accept gifts or other considerations that influence or give an appearance of influencing their professional judgment.
nothing better than to sit around the house and complain about her life — and about me. And she wonders why I spend as much time as I can on the golf course.”

Karen is at a loss for words. “I hope it’s not that bad,” she finally manages.

“Trust me, it is,” Mike says. “Anyway, I know our time here is winding down, but I’d really like it if we could stay in touch. We could play some golf together — at the very least. I feel a real chemistry with you. I hope that you feel it, too.”

So, there’s no longer any ambiguity. A married man is interested in her. Karen now sees that he has felt emboldened by her actions. While it’s clear to her that she must reject Mike’s overture, she can’t help wishing that she’d handled things differently — ideally avoiding this extremely uncomfortable moment.

**For Reflection**
Karen realizes in retrospect that with regard to Oak Ridge’s motto, her professionalism in this situation could have stood improvement, and her personal touch was subject to misinterpretation. Have you been in a situation in your career in which signals you sent a patient may have inadvertently helped cause misunderstanding and even discomfort? If so, did this prompt behavior change on your part?

**For Follow-up**
If you are reading the print version of this column, go online to www.apta.org/PTinMotion/2020/3/EthicsinPractice/ for a selection of reader responses to the scenario, as well as my views on how the situation might be addressed. If you are reading this column online, simply scroll down to the heading “Author Afternote.”

Be aware, however, that it generally takes a few weeks after initial publication for feedback to achieve sufficient volume to generate this online-only feature.

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FROM CONVERTING AN OLD CLOTHING STORE TO BUILDING A NEW MEDICAL FACILITY, PHYSICAL THERAPY IS REDESIGNING ITSELF TO MEET THE NEEDS OF CURRENT AND FUTURE PATIENTS AND CLIENTS.
Left, Top, and Middle: Northwestern Rehabilitation Associates’ sports performance and injury clinic. A two-lane 70-meter track runs both indoors and outdoors, defining the building’s focus as athletics.

Bottom: Northwestern Rehabilitation Associates’ Healthy Aging and Neurology building was designed to resemble a two-story house, in keeping with the age and preferences of its patients.

Photo credits: Andrew Studer Photography, Portland, Oregon.
IN THIS Q&A, PHYSICAL THERAPISTS AND HEALTH CARE ARCHITECTS DESCRIBE THEIR EXPERIENCES AND OFFER ADVICE. PT IN MOTION INTERVIEWED COLLEEN BORRELLI; MARYAM KATOUZIAN, AIA; LAUREN LOBERT, PT, DPT; SCOTT RAWLINGS, AIA; SHEILA SCHAFFER, PT, DPT; AND MIKE STUDER, PT, MHS. SEE “THE PARTICIPANTS” ON SUBSEQUENT PAGES TO LEARN MORE ABOUT THEM.

What was your goal in designing or redesigning your space?

**Schaffer:** We wanted to downsize our space. It’s no secret that in unregulated practice, revenues are declining. We wanted to reduce our overhead by making our space smaller.

We’re an outpatient clinic and specialize in orthopedics. We don’t have a pelvic program, for example. And we’re usually treating in a large gym space. We needed to leverage the gym space as we downsized.

Our original space was 5,811 square feet. We reduced that nearly 1,000 square feet, to 4,829. We had a large wellness program, including locker rooms with bathrooms. Our redesign got rid of the lockers and the bench, so we were able to open up that space. We actually feel as if we added to the gym’s size. Although it may not be larger, it’s more functional.

**Katouzian:** The University of Virginia’s goals were to collocate its previously dispersed orthopedic and musculoskeletal clinics, outpatient surgery, imaging, and physical therapy. The state-of-the-art outpatient center will allow patients to access comprehensive care in a convenient and patient-centered environment. The multidisciplinary facility will provide physicians and staff with a collaborative environment while supporting the training of future providers.

UVA also offers an outpatient facility that handles minor orthopedic surgeries for the “healthier” population of patients. The more sensitive cases are dealt with at the [UVA] hospital.

ZGF worked closely with UVA to refine a vision and a space program for the new building. Our team led a hands-on design process that engaged diverse project stakeholders, including administration, physicians, and staff. At the start of the project, we conducted visioning workshops to verify what the aspirations and priorities were for the project. From there, we visited UVA’s multiple existing facilities to assess what was working or not working. To understand how UVA’s peers had treated their facility design, we toured comparable orthopedic facilities across the nation. Finally, we brought diverse stakeholders together to define what the ideal model of care would be for the new building and what type of space would best support it.

As far as look and feel, they want this to be a high-touch facility. They don’t want it to feel like a medical facility. They want a hotel feel.
THE PARTICIPANTS
PT in Motion assembled a diverse group of participants to share their views on facility design and redesign. The projects themselves ranged from downsizing a clinic to building new facilities. Here and on page 25 is a quick overview of the participants and projects.

COLLEEN BORRELLI
Vice President, Patient Experience
Marsal Caregiver Center
Burke Rehabilitation Hospital
White Plains, New York
The Marsal Caregiver Center is a 1,657-square-foot space dedicated to the family members and loved ones of its patients. Its goal is to improve the hospital experience by providing emotional and practical support to those who struggle to manage the daily challenges of caring for a loved one during hospitalization and transition to the next level of care. It opened in May 2018.

MIKE STUDER, PT, MHS
President
Northwestern Rehabilitation Associates, Inc.
Salem, Oregon
Northwestern Rehabilitation Associates (RHA) operates three facilities in Salem. The first, opened in 2009, is its Healthy Aging and Neurology Building. The second, opened in 2014, provides a more performance boutique experience. The third, opened in 2019, is a sports performance and injury clinic. RHA also operates a satellite clinic in a continuing care and retirement community.

SHEILA SCHAFFER, PT, DPT
Outpatient Therapy Manager
University of Maryland Rehabilitation & Orthopaedic Institute
Baltimore, Maryland
The clinic wanted to downsize from 5,811 square feet while increasing the efficiency and usefulness of its space. After considering a move, leaders retained the location while reducing its space to 4,892 square feet.

Borrelli: A new CEO [for Burke Rehabilitation Hospital] was named in April 2017. He decided to create a patient experience department. A cornerstone project was to have a Caregiver Center, the strategy being that the best way to care for patients would be to take care of caregivers. We were fortunate to have the space available to convert. The Caregiver Center is 1,657 square feet.

Lobert: We moved to a new space last Labor Day. It’s a 1,300-square-foot space in a shopping center that previously was a clothing store. There was no treatment room, front desk, or other areas you’d find in a clinic. We started from scratch. We had been sharing space with another business, including a shared front desk. This was our first independent space. We also were on a budget.

Studer: Northwestern Rehabilitation Associates has three different facilities. The first is our Healthy Aging and Neurology Building, built in 2009. It’s important for patients to see other people like themselves exercising — sometimes even struggling, but persevering. So, in that location we opened a new Caregiver Center.
building, we built an open gym so patients can see each other and interact.

The 2014 building has a primary orthopedic focus. Patients work one-on-one and may spend a majority of their session behind a curtain or a closed door with their therapist. There is less patient-patient interaction. One might come out into the gym for therapeutic exercise, or not. It’s a more personal and boutique experience.

In 2019, we opened a sports performance and injury clinic. The centerpiece is a performance lab with the latest in technology that really keys off the facility. Patients of all ages and capabilities come to be professionally analyzed — elevating therapists as movement scientists who are instrumental in studying movement and helping people achieve fitness or athletic goals.
How did you figure out what you wanted in your space?

**Schaffer:** The University of Maryland Medical System has a relationship with a real estate agent, so we used them to help identify spaces we might move into. We narrowed it down to two, plus our current site. We were planning on moving. But once we prepared to give our notice, the landlord asked to have a conversation with our CFO and CEO. It all worked out; we remained here.

As part of not moving to a new space, we gained some leverage with the landlord. For example, the landlord previously hadn’t wanted to redo the locker space because of the presence of air handling and other equipment. We and the landlord now negotiated on who would pay what.

We did downsize some. I have a permanent office at the [University of Maryland Medical Center] hospital, and gave up my office space here. We gave up some storage where we kept medical records. Now that we’re electronic we were able to clean out a lot of old stuff. We also reduced office space now that more documentation is being done on the floor. And we eliminated one closed-door treatment room.

We also went to our staff. We reduced the size of the breakroom, but we kept it because the staff wanted it. Everybody had a voice in the decision-making process.

**Borrelli:** We had just joined the Montefiore Health System, which had three other caregiver centers. I immediately went to see them, which was a tremendous help.

We also convened focus groups of former Burke caregivers and gathered feedback from them on everything from wanting a private place to make a phone call to having a place to charge their phone or computer. We listened carefully. Their feedback absolutely affected the design of the center.

The planning process also included Burke staff and our professional caregivers, who know our families so well. In the end, it was a combination of those sources that informed the final product.

**Lobert:** We wanted a big open space with a couple of rooms. I wanted it to be relatively close to where we were before. I already knew the general location, and I wasn’t in a huge rush.

To what extent were architects used in developing the space or building?

**Lobert:** We met with an architect and a contractor to help my vision come to life, based on our needs. We decided on three treatment rooms, sized at 8 x 10 and 8 x 12 feet. I previously had worked in a facility with 8 x 8 rooms, and we’d run into the walls; those rooms were too small.
I knew both the designer and the contractor. In fact, the architect was a former patient. We were required by the city to have an architect sign off on the designs. He had to cover all the specifics on fire alarms, where exit signs would be, and so on. We didn’t change anything structurally; it simply was adding non-weight-bearing walls. Planning involved a lot of standing in the space. The architect would walk me through using a measuring tape to show what the room size would be. He’d ask, “Is this large enough? Do you like this here?”

**Borrelli:** Our CEO had a pretty clear vision of what he wanted. We had meetings with the designer and internal people. We employed EwingCole, a full-service architectural firm in Manhattan that designed it start to finish. There were a lot of people going back and forth, and time spent sitting in display rooms in Manhattan.

**Studer:** We used the same architectural group, CBTwo, for our buildings in 2009, 2014, and 2019. They already had some medical experience and also retirement facility experience. They’re a local company but a regional leader in medical practices and assisted-living facilities.

We consistently have looked for designs that provide traffic flow of patients into the gym and give therapists the opportunity to come up to greet patients.

We sat down with the architects. We told them the theme of the building and the type of individual who will be coming in. We tried to give the architects some latitude. For example, when they knew that the third building involved sports, they suggested using a racquetball court for a reception area. That knowledge is where working with the same architecture group can be really beneficial.

**Schaffer:** We didn’t look at other facilities per se, but we had an idea what would work for us. When we thought we were going to move, but then chose to stay, we had to think outside the box. It took all of us to figure out how to get as close to the plan as we could. The architect would send us a plan. We’d all mark it up and send it back. By the third rendition, we felt we were getting there.

**Rawlings:** To develop the concept, we brought in some of our hospitality people. We held a charrette — gathering our design team and resources into an intense three-day session to generate a collection of ideas. We then brought in the client to present a lot of material that we have pinned to the walls.

**Katouzian:** The way we approached the building’s programming and layout, we were heavily involved with the patients and the physicians. We wanted to understand their routines, their daily operations, and the way we could provide the most efficient layout. We also toured a couple of physical therapy facilities to understand their needs and how their colleagues performed.

The physical therapy suite is on the ground level of the building, and, for obvious reasons, we wanted it directly accessible to patients. Access to the outside was critical. The second area to consider was the facility’s sports medicine clinic. We located this clinic on the floor above the suite, so it would be easy for patients to go back and forth. A featured staircase connecting the floors could be used as part of their physical therapy routine.

The redesigned University of Maryland Rehabilitation Institute at Woodlawn, showing the increased space on the right. Foreground: Therapy tech Garrett Gischel stands by a patient during her exercise.
The surgery suite will be adjacent to physical therapy because, after surgery, physical therapy is often the patient’s next stop. When we were laying out the pre- and post-op areas, we identified corridors where PTs could walk with patients.

We were hands-on with the different teams involved in the project. A couple months of our process involved going to UVA for week-long work sessions with users. These were three- to four-hour sessions with different groups who would be housed in the building. We asked them how their workday went. We toured their existing facility. Then we’d put pen to paper and try to do a first pass. Our turnaround time was three to four weeks. We’d have the same people refine the design. We focused on adding value rather than just recreating their existing spaces.

We went through a four-month programming phase, understanding and defining the layout of the rooms. After that came design development — such as what goes into an exam room — and refining that with users.

Representatives of the physical therapy team attended the meetings. They were decision-makers who’d give us their feedback. We also had a core group of surgeons and UVA representatives who’d make the final decision on the spaces.

ZGF helped integrate the detailed requirements of the diverse users into the design while also maintaining focus on UVA’s broader project aspirations. Through multiple week-long, onsite work sessions, we maintained regular engagement with UVA stakeholders. As the design developed and our focus shifted to defining how the building would be laid out and the specific design of each room, we continued to explore, test, and refine options with UVA.

Were there some things you knew you wanted?

Lobert: Owners often end up with fancy offices. I didn’t want to be closed off from the clinic. So we opted for a documentation station. We decided to put it behind a half-wall. We have desks, so when we sit down the patients can’t see us. But we can hear patients come in and out and what they say to the front desk. I like that in-between setting. Some practices have a desk in the middle of a clinic. You never get your work done. So we decided not to do a full office, but it’s not totally open, either.

Studer: Flow is important and is the commonality in all three buildings. Flow means ease of movement for patients and therapists: patients getting in and beginning treatment, and therapists moving up front to coordinate with the front desk staff or to meet clients. Without that ability, functionality inside the clinic is inhibited. Essential communications won’t happen if the PT doesn’t have convenient access to the front. This flow works out extremely well for all involved.

We also made the decision to reinvest in the environment. We have photovoltaic panels off the grid. But we’re not doing the smart building technology yet. We’re not sure it’s where it needs to be, and we’re getting better benefit from the photovoltaic panels.

Rawlings: We always want to understand more about how our client approaches their patient, operationally. How do they provide optimal care and how does that model define who they are? Architecture can inspire and raise the level of what we do each day, but it needs to be focused on creating a better environment for each individual operating model to be fully supportive.
How did the demographics of your patients and clients influence your design?

**Studer:** Our initial building — Healthy Aging and Neurology, constructed in 2009 — is designed to look like a two-story home. Remembering the age of the patients we’re working with, it’s good to have a large home appearance. Our second building is more contemporary: 5,000 square feet spread out on one story. The color scheme in the second building is bold, while the first one is more muted. As these buildings are only 200 feet from each another, we kept our same logo and branding to have a consistent thread throughout — a campus feel.

We opened a sports performance and injury clinic in 2019. The centerpiece is a performance lab with all the latest in technology that really keys off the facility. We want everyone to come in, regardless of their abilities. We drove a track all the way through the building to make things visually pop. That makes it apparent that we’re doing athletics there. The track is two lanes, 70 meters down the middle of building. It’s literally an indoor-outdoor track — 30 meters inside and 40 meters outside. It’s bisected by a garage door that we can open. Here again, the architectural lines and colors are very aggressive, athletic, and sleek.

**Lobert:** We see the whole lifespan of patients. We’ve had five-year-olds and 90-year-olds. We even have patients whose goal is to take their grandchildren to a zoo. It’s a good mix. We just want patients who want to get better and who are happy to see us. We have a chalkboard wall that patients sign when they “graduate.” We like to see patients who are motivated, who want to be here, not just because their physician told them to.

**Rawlings:** Speaking more broadly about designing for demographics, when we’re approached regarding a physical therapy center, our first response is to get very specific about patient mix and demographics. Rehab has become very specialized and very wide-ranged at the same time.

As we move from baby boomers to the younger generations — Gen X and millennials — we look more to sports gyms for design inspiration. These generations are used to this type of space, and social interaction, as part of their daily lives, so it resonates with them. The days of sterile spaces lined with equipment and tables in the basement of a hospital are over. Natural light, easy access, views to nature, and inspiration design is key.

Another trend: To appeal to the younger generations, more forward-thinking systems are moving these spaces off campus. They are looking for locations near sports fields, recreational areas, and parks. You’re not going to a hospital and starting from a sick environment. You’re starting from a place of wellness.

When we start to conceptualize these spaces, we consider retail spaces and sports wellness venues, not hospitals. The younger generation is much better at using social media to research and select their preferred health destinations. They don’t see health care as simply existing in hospitals.
Katouzian: Every aspect of the building was designed with the patient group in mind, and we sought to create an environment that is easily accessible for all users. The layout of the building minimizes the number of steps patients need to take to access the clinics and services. ZGF also focused on selecting materials that would not create hazards or barriers. For example, when we specified items such as walk-off mats, we chose materials that will not present a challenge for wheelchair users.

How did you incorporate branding into your design?

Lobert: I’d gone through the entire branding process with a graphic designer to design my logo. That really helped define what the business meant to me: bright and aggressive. Having already done that, it was easier to convey the brand in the physical space. Our logo color is a ruddy bright orange. I went to the space with my card and a Pantone [color sample] book. We have 2 walls painted that orange color. The other walls are bright white. The floor is black. That’s all based on our branding.

Studer: We put an underwater treadmill in each of the buildings. The underwater treadmill gives us a “branding” feature that’s unique and not fad-like — unlike modalities, some of which will come and go. The treadmills will be something that people around town can talk about. Aquatics is something we can do for any type of rehabilitation. It allows us to diversify the people we can serve and increase the intensity of the intervention.

Katouzian: UVA branding is incorporated throughout the building’s architectural and interior design. Through its materials and form, the exterior expression of the Ivy Mountain Musculoskeletal Center is inspired by the traditional style of architecture common on campus. On the interior, branded navy blue and orange elements — UVA’s colors — help celebrate the client’s reputation as a top care provider. We also focused on branding when it came to developing the identity for each of the specialty clinics.

Although we sought to promote cohesion among the clinics and services, it was important that we retain identity for each to promote clarity for patients moving through the building.

How were PTs, PTAs, and others at your facility involved in the process?

Lobert: My front desk was really helpful letting me know what they needed — how much desk space, how much storage space. We moved so that we could grow, so the question was: What will we need a year from now? Two years? I learned a lot from talking to my employees about their preferences for making the environment work the best for us.

Borrelli: We definitely sought the input of PTs and PTAs. It was vital because of their intimate familiarity with the facility and their working with the families of the patients. We’ll see therapists bringing patients through the center.

We received input from board members, senior staff, and the clinical team.
Our tendency was to be very inclusive. They thought of things we hadn’t. For example, another hospital with a caregiver center had a tiny room with a massage chair similar to what you’d see at a nail salon. We presented that to our caregivers. They responded: “Not like the chair at a nail salon!”

We thought about installing a television. Everyone had the same reaction: There would be potential disagreements on channels and news coverage. So we did not include a television. Someone said it was important to have healthy snacks. We also have two private rooms: One is upbeat with vibrant colors. The other has dimmer light. We put those in because caregivers said it was important to have a place to make a private phone call or have private
discussions. There were many times, caregivers said, when it was necessary to deliver very personal news.

**How can the design of the facility help motivate patients?**

**Rawlings:** The space should be motivating, to encourage people to do the work.

Because people are more goal-oriented now and digitally savvy, patients and clients want to see the steps in their improvement. So we design facilities to visually give them an idea of progression.

For example, we finished a project at UPMC, which has one of the top rehab programs in the country. Included with the new facility will be an extensive outdoor garden, with differing pathways and stimuli to allow patients to work on their ability to navigate changing situations. In the past, we would have simply set up an area with three for four separate stations to visit. With this design, we were challenged to develop the garden as a progressive pathway that also could support the visually impaired. This allowed us to rethink how people with different conditions recognize space. We created a single pathway, still incorporating the traditional material and elevation changes, but included multiple sensory points. Patients moving through the garden will experience different sounds and smells. Using planting and sensory sculptures such as wind chimes, visually impaired patients can begin to navigate the space with alternate senses, using these “point identifiers” to navigate a complex pathway. There will be a true sense of accomplishment when they finish.

**Katouzian:** We focused on creating a patient-centered environment that reduces stress, promotes safety, and helps normalize the health care experience. The site itself in Charlottesville serves as motivation. It’s a beautiful, layered site, with hilly and flat portions that we can use to our advantage. We created a flatter area of the site directly accessible from the gym, so doctors and patients can get outdoors. We also have weaving trails through the site, with different levels of difficulty to allow patients to engage in physical therapy outdoors. To reduce stress, the building’s interior design will more closely resemble a hotel or spa than a traditional clinical environment.

**How long did the process take?**

**Borrelli:** The process was one year from planning to ribbon-cutting. The planning process probably took about three months. Other centers told us: “It’s a tremendous goal, but it’s just not possible” to do it so quickly. The architects and Burke’s internal team were very anxious for that initial phase to happen on schedule, and I pushed for that.

I’m glad we did it that way. Our CEO felt, especially because our patients are becoming more neurologically complex, that he didn’t want to wait longer to give them that support. We also received an unanticipated donation that helped us jump in “whole-hog.”

**Schaffer:** Ours was a three-phase plan. The contractor provided a schedule, but there was something I wasn’t aware of. Phase One addressed one area. We thought Phase One would be completed before we went to Phase Two. That wasn’t how it worked. Maybe having a construction manager on our team would have helped. You’re always
What sort of surprises or unexpected challenges did you encounter?

**Schaffer:** Communication is critical. I had told the contractor that our cleaners would still come in. They thought our cleaners would clean up after their construction crew. The first day after construction, we came in and there was dust everywhere. They were much better cleaning up after that. Every morning, I'd meet with the construction manager. I would ask, “How long will this hole be in the ceiling?” Or mention something that needed to be corrected for patient care.

**Studer:** The biggest surprises are the increasing city development costs and the time it takes to get the project moving. The time has increased exponentially with each of our buildings. The reason — and this isn’t isolated to our city — is that when a new tax is proposed, such as to improve the...
streets, it’s much easier to get the funds from a corporate resource than to add more taxes onto the backs of individual citizens. A business only has one vote. If you’ve levied an additional tax on the business, it’s not going to be opposed as strongly as if those taxes were put on the general populace, where it’ll be opposed by thousands of voters. Taxing businesses is the path of least resistance.

Lobert: One surprise was that the rubber I chose for the flooring was a pain to put down. I love it now, but it wasn’t easy to install. Another surprise was the cost of electricians. To pass inspection, we needed to change fixtures. The electrician moved a few lights and it cost approximately $7,000.

Borrelli: We really struggled with whether to permit patients to enter the caregiver centers. We’re patient-centered and it seemed strange for a caregiver to go into this gorgeous space, and then go and describe it to the patients. Most focus group participants, though, said the area should be exclusively for caregivers. So we compromised and allowed patients when accompanied by their caregiver. We’re still struggling with that.

What’s been the feedback from your various stakeholders?

Borrelli: Staff love the caregiver centers. Some centers allow staff to use those areas, but we don’t. Some caregivers said they’d feel uncomfortable. Our nursing team would say it has positively impacted their work. It’s a place to send a caregiver with a social worker there to talk to them. The staff feels that it helps them because of what it offers to families. Our senior administrators are huge fans. There’s no one who doesn’t think it’s a good idea now.
As we’re open longer, our center director is looking to expand the programming. We’ll offer a “Burke 101” class for new caregivers, showing videos on certain topics. We’ll have complimentary mini-massages. All those offerings will elevate it to being more than just a beautiful space.

People are using the facility and getting out of it what we’d hoped. We’re learning every day from our caregivers. We’re tailoring things as we go on. We’ll have special celebrations in there — birthday parties, a proposal (a caregiver proposed to his girlfriend who was there as a patient), a 50th anniversary celebration.

**Schaffer:** The patients have been very pleased. For years, there had been a gym membership available to patients after finishing therapy. The gym/wellness members were disappointed with the removal of the lockers. But we did install some cubbies, and we do allow people to go into a curtained area to change clothes if they need to. We were able to keep some equipment, and it feels so spacious. And we added a softer floor. The response was phenomenal.

**Katouzian:** We have heard from stakeholders that they are thrilled to see their vision for this project come to fruition. There is tremendous excitement for how transformative the building will be in providing patients

Therapists love the space as well. It looks so modern. And we now have a wheeled cart with laptops and desks at which the therapists can either stand or sit with fixed computers. They felt that everything they needed was retained, and we now have adequate space for functional activities that we were a bit tight on before.

 Patients sign a chalkboard wall at APEX Physical Therapy when they “graduate.”
with an entirely new level of care and convenience, in addition to educating the next generation of providers.

**What advice would you offer to others considering a similar project?**

**Rawlings:** On many projects, clients request site visits to other similar facilities. Not every client needs tours in person, as this can be time-consuming and expensive for the institution. Much of what needs to be seen can be accomplished with virtual tours and case studies, but for this type of facility, we advise them to find a few facilities that are operating similar to their business model and accomplishing similar goals. So much has changed over the past decade with digital environments, tools, and new thinking in motivation. Clients really need to see what’s out there, and they often come back with an entirely different idea of what they want to build.

**Borrelli:** There isn’t a lot that we wished we’d done differently. The best thing we did was involve our own staff and former Burke caregivers in the process. Maybe other facilities or clinics don’t have the luxury of being close to other centers. But we looked and saw things we wanted to do, and things we didn’t.

**Studer:** You need to know your brand, your customer base. You need to build to reflect that. And plan ahead for technology and growth. Initially, we needed Ethernet lines, then Cat5 cable technology, wireless routers, and Bluetooth-compatible equipment. Now it’s Cat6. You need to be thinking ahead. For example, include access panels and conduits to thread through new wiring. You never know what you don’t know.

**Schaffer:** Assess the needs of your space and your patient clientele so you can retain what you absolutely need. Then determine what you can sacrifice if you’re downsizing. Have someone with construction experience on your side of the table. A daily startup meeting with someone from project management was very helpful for us.

**Lobert:** We were sharing space with another business, with a shared front desk. So this was our first independent space. We were on a budget. We bought a lot of used equipment, but we bought high-low tables because we do a lot of manual therapy. I don’t think a ton of equipment is necessary. We got the basics — including a rower, bike, and leg press. But not large equipment. After a few months, we talked about what else we really needed. We weren’t in a rush to fill the space. If you start with the basics, once you’re there it’ll all make sense, rather than [guessing] and buying equipment you won’t use.

**Katouzian:** One size does not fit all, and it is worth the effort to develop a unique solution around your organization’s culture, aspirations, and patient population. Taking the time to include diverse users and stakeholders in your visioning and design process can make all the difference.

Donald E. Tepper is editor of PT in Motion.
More and more actors with disabilities are appearing in TV shows and movies. Physical therapists are playing a supporting role.

When actor Kurt Yaeger was younger, he had a very different career. Instead of performing in television shows and movies, Yaeger was a BMX (bicycle motocross) professional.

“I did flips, jumps, 360s — huge, crazy stunts,” he recalls. He rode for companies, participated in professional competitions, and traveled extensively.

By his late 20s, though, Yaeger says, “My body was wearing down, and I felt like I should probably do something else.” He was working on earning a master’s degree in hydrogeology — while still doing tricks and riding bikes for fun — when his whole world changed.

While riding his motorcycle, Yaeger was in an accident. Even now, he can’t remember what happened, but his
injuries were substantial. Yaeger lost his left leg below the knee, sustained a serious pelvic fracture, tore his bladder in half, broke all of his right ribs, and fractured seven vertebrae. Also, his lungs collapsed.

He underwent 27 surgeries. He spent three-and-a-half months in the hospital — and another three months recovering at home before getting his prosthetic leg — so he had a lot of time to think. Not surprisingly, he had to drop out of school most of the way through a semester. “I went to a dark place for a while,” Yaeger admits, as he tried to figure out what he was going to do with the rest of his life.

Plot Twist
A good friend suggested he try acting. Yaeger had acted a little as a kid and, as a BMX athlete, he’d performed in videos for sponsors. Yaeger was hesitant, but his friend helped him put photos of himself on websites for actors, including a site, which no longer exists, specifically for actors with disabilities.

Shortly thereafter, Yaeger received an email from people involved with a movie. They liked his look. They needed an actor who had a leg amputation. However, the role involved playing a wounded Afghan refugee, so the actor needed to speak Farsi.

“They asked, ‘Do you speak Farsi?’” recalls Yaeger. “I said yes.” He didn’t, but that didn’t stop him. He wanted the role.

Yaeger needed to record his lines to prove that he could be convincing as a native Farsi speaker. He asked another friend who spoke Farsi to read the lines phonetically onto a recording. Yaeger memorized it and he made the required tape. He got the part.

The movie was “Charlie Wilson’s War,” starring Tom Hanks, Julia Roberts, and Philip Seymour Hoffman. Although Yaeger’s scene eventually was cut, he was hooked.

The film’s director, Mike Nichols (who also directed such classics as “The Graduate,” “Silkwood,” and “Postcards from the Edge”), told Yaeger he was a good actor. When Yaeger shared how little professional acting he’d done, the men had lunch together and Nichols gave him some advice. “That’s the point when I gained hope that I could do this,” says Yaeger.

Since then, Yaeger has appeared in TV shows such as “NCIS,” “NCIS: Los Angeles,” “NCIS: New Orleans,” “Sons of Anarchy,” “Quarry,” and “Without a Trace,” and currently is on “L.A.’s Finest” with Jessica Alba and Gabrielle Union.

During his recovery, Yaeger admits that he was too stubborn to accept physical therapy. He thought he could do it all on his own. Imagine his surprise just a couple of years ago when he took the advice of a physical therapist and began to feel even better. But more on that later.

Working With Actors With Disabilities
Adriane Bergman, PT, works at a large academic hospital in Southern California. She’s used to treating celebrities and actors, including those with disabilities.

“Treating an actor with a disability is the same as treating anybody with a disability, because no matter what their profession is, they have to overcome daily hurdles,” Bergman says. “Treating them is about figuring out their needs in their daily lives and how we can make adjustments within our treatment sessions so they can be as functional and as independent as possible.”

She adds, though, that in working with actors with disabilities, there is one important difference: “Actors are very aware of how they look physically. They think about their body image and how others will perceive them,” Bergman says. “For example, I may have to work with them on their gait or something else that would affect their appearance.” If they’re injured and recovering, she says, actors with disabilities know how they moved and looked before the injury. They want to regain their gait, appearance, and other physical traits so that they can go back to auditioning for roles.

“If a patient has a specific issue that he or she wants to address, we will address it. Actors tend to be perfectionists. They know what they want out of physical therapy, and they will work hard and train hard to get things the way they want them,” says Bergman.

“The best advice I can give to PTs is to treat any actor or other celebrity with a disability just like any other patient, because that’s how they want to be treated. It’s difficult when the patient is a celebrity, because people can be intimidated by them,” she says. “Give them the best possible care you can offer and realize that they’re just like everyone else. Don’t put them on a pedestal, because they don’t like that. Just be there to support them.”

Incorporating Physical Therapy Into Acting
You may know R.J. Mitte from his most recognizable role — as Walter White Jr. on the hit series “Breaking Bad.” He’s appeared in many other TV shows and movies, as well — including “Switched at Birth,” “Robot Chicken,” “Standing Up for Sunny,” and “Hannah Montana,” one of his first TV roles.

Mitte wasn’t correctly diagnosed as having cerebral palsy until he was 3 years old. Someone suggested his family take him to a Shriners hospital for children. At the time, his family lived in Lafayette, Louisiana, so they went to the one in Shreveport.

“That was my first introduction to physical therapy, occupational therapy, speech therapy, orthopedic and prosthetic braces, ankle-foot orthoses, and dynamic ankle-foot orthoses,” Mitte recalls. “They really focused on creating a world of therapy for me and giving me the tools I needed to get stronger.”

From ages 3 to 13, Mitte received physical therapy, occupational therapy, and speech-language pathology. Today,
he continues to perform exercises, stretches, and movements he learned in physical therapy to keep his body well-honed. He swims a lot because he can strengthen his muscles without the impact of gravity. “Gravity is not my friend,” he notes with a laugh.

Mitte still incorporates what he learned in physical therapy because, he says, it helps with his job. “When I was in physical therapy, I could incorporate it into things I liked and was passionate about, like soccer and martial arts. The same thing goes with acting. When you’re an actor, your whole body is your tool. It’s what you use to create and mold each individual character — how they behave, walk, and talk,” he explains.

For example, when he was playing Walter White Jr. Mitte used crutches, which he does not require in real life. In an upcoming movie called “Triumph,” Mitte plays Mike, a guy with cerebral palsy who wants to be a wrestler. “Most of the characters I’ve played have dis-abilities in their own way. I’ve played a character with muscular dystrophy, one who was a paraplegic, and a couple who had cerebral palsy,” Mitte says. “What I try to do for these characters is not mimic the disability itself, but create its own entity within that character. So, every character I play faces different obstacles to overcome.”

He credits the various therapies he has had, including physical therapy, for helping him get where he is today. “Without the tools that my physical therapist gave me, I wouldn’t be able to do what I do today. I wouldn’t have the knowledge that I learned through exercise, by building my motor skills, and by refining my eye-hand coordination,” he says.

Forging Ahead
While actor Eileen Grubba wishes that she had had physical therapy throughout her entire life, she received most of it after surgeries to her left foot in 2016 and 2017. She was paralyzed from the waist down as a young child by a vaccination that resulted in damage to her spinal cord.

“I nearly died. My growing years were spent in a wheelchair, and they didn’t expect I’d ever walk again. I have a C1 to C4 incomplete spinal cord injury, where the virus attacked it,” she explains. Grubba was able to walk again because, as a little girl, she didn’t understand why she was paralyzed. She kept trying to put weight on her feet. “Then I’d fall on the floor because I had no feeling in my legs,” says Grubba. But she kept trying.

“My mom asked me what I was doing, and I said, ‘I’m trying to walk,’” Grubba recalls. “I finally got to the point where I could stand a little by the side of my bed.” She notes that researchers are learning now that with incomplete spinal cord injuries, if weight is put on them, in time the body may regenerate significantly.

Grubba was not even 5 years old when she began trying to walk. By age 7, she was using a walker. She eventually began walking with her right leg and dragging her left. To date Grubba has had 14 surgeries on her left foot alone.

In 2016 and 2017, physical therapy helped her with her mobility so much, in fact, that she was thrilled recently when her podiatrist wrote her a prescription for more physical therapy. For the first time in her life, she’s going to work on her gait. “If I knew when I was a young kid what I know now, I would never have had a single surgery on my foot. I would have just gone through physical therapy and kept working on it with exercise,” Grubba says.

Physical Therapy Saves The Day … or at Least The Role
Although there have been times when Grubba has been in excruciating pain — she had a bone-on-bone issue in her left foot — she’s kept up acting. Grubba has appeared in the TV shows “New Amsterdam,” “S.W.A.T.,” “Stumptown,” “The Politician,” “Watchmen,” “All Rise,” “Sons of Anarchy,” “Criminal Minds,” “Dexter,” and “Bones,” among others. In “New Amsterdam,” she played a woman with a spinal cord injury caused by the medical community, and a cancer survivor. The latter mirrors Grubba’s own health history.

“The character in ‘New Amsterdam’ mirrors my life experience in three ways – as a spinal cord injury patient, cancer survivor, and someone whose paralysis was caused by the medical industry. All three are part of my life experience,” Grubba explains.

After her surgery in 2016, Grubba got an audition for “Fear the Walking Dead.” She was in pain because bones were still striking each other, so the PT who had been working with her post-recovery taped it up — “like Superman” Grubba says — to keep it stable.

The good news is that Grubba got the job. The bad news was that the episodes were shot in Mexico. “I had to travel...
there three times, and I could hardly walk,” she says. “I couldn’t get through a train station. I couldn’t show up with my crutches. I didn’t know what I was going to do.”

The solution provided by her PT was taping the foot and using an ankle-foot orthosis.

No PTs on the Set
It’s standard for actors to have everyone from chefs to trainers on the set. You typically won’t, however, find PTs on sets with actors with disabilities. In fact, they have to focus on continuing to get acting roles in order to keep their health insurance.

Grubba appeared on one show in which the actor playing the main character had a high-tech gym set up for him in a trailer. “As an actor with a disability I thought how great it would be to have a physical therapist on set with me every day. That’s something I could never afford on my own,” she says. But she dreams about it. “Maybe a show will get that for me. Maybe I’ll have my pick. One day, I hope to be on a show where they ask me what I need, and that’s going to be what I’ll request — a physical therapist and a trainer.”

“Most actors with disabilities aren’t working enough to warrant having a physical therapist,” agrees Yaeger.

A New Procedure That Worked
Born and raised in Baltimore, Maryland, actor Alex Barone has had more physical therapy in his lifetime than any other actor interviewed for this article. He was born with fibular hemimelia — meaning there is no fibula bone in his right leg. As a result, his right leg was shorter than his left. He also was born with three fingers on each hand. “I tell kids that I’m Donatello from the Ninja Turtles,” Barone jokes.

When he was young, Barone’s physicians talked with his parents about the possibility of amputating his affected leg. At the time, the Barone family had just moved to a new home, and their neighbor noticed that Alex had a lift on his right shoe to make his legs the same length. The neighbor told Alex’s parents that he was working at The Rubin Institute of Advanced Orthopedics at Sinai Hospital in Baltimore. They were performing a procedure, new at the time, called Ilizarov limb lengthening.

“They would go in and stretch my bone over time so that it would eventually be even with my left leg,” says Barone. “I had 42 surgeries, from the age of 6 until I was 17. I had physical therapy after every surgery.”

The procedure was successful. Barone’s legs are equal length, and he has no pain. He is able to do everything from CrossFit to jiujitsu. He also runs and works out at the gym every day.

Barone recalls that his physical therapy helped him work on pain modalities, balance activities, back strength, and weight shifting — all due to the limb-lengthening process. “Physical therapy definitely made me stronger internally and externally. I learned to appreciate the process of healing through therapy. When I was a kid, the physical therapists were inspiring to me. I would look up to them. They were so passionate about what they were doing,” says Barone.

Two Actors and a PT Walk Into a Gym
Barone has been working hard to build his career since he moved to Los Angeles 5 years ago, and the effort shows. He’s been a costar on the TV series “Adam Ruins Everything,” a supporting lead in the feature film “Beneath the Black Veil,” and recently was chosen as one of only 16 actors from more than 16,000 who auditioned to be appear on the “ABC Discovers: Talent Showcase.”

His first gig in the City of Angels came about after he met producer, director, and actor Eli Roth. Barone says that while brainstorming ideas for different shows, they came up with
one they called “A Little Different.”

Barone hosted the show and traveled to sites in southern California to meet with people with disabilities who had interesting talents. He talked with them and showcased their activities. While doing that, he met Kurt Yaeger, and the two became friends.

Barone and Yaeger began regularly hitting the gym together. Barone’s girlfriend, Carolyn Watling, PT, DPT, a physical therapist at Henry Mayo Newhall Hospital in Santa Clarita, sometimes joined them to work out. She began giving them tips.

“Carolyn helped us work on gait training, balance, coordination, strength, and symmetry,” Barone says. “My right leg is still a lot weaker than my left. This helps.”

Yaeger concedes that he was too stubborn for a long time to work with a physical therapist. “I thought I could do it all on my own,” he says. Barone told him that if he strengthened his core he would walk better. Yaeger doubted that, but he relented and went to the gym with Barone.

“I complained every step of the way,” says Yaeger. “But by the end of that month, I realized he was right. I was getting stronger, much more flexible. I had excellent balance before, but I had a strength about my balance after I began working out.”

Watling began calling PT friends who were specialists in orthopedics to get more specific information on dealing with Alex’s and Kurt’s particular situations and needs. “My knowledge has kept growing,” she says. “By working with Kurt, I’ve learned a lot about people with amputations. I’ve had some patients in the hospital who had amputations, and I’ve asked Kurt about his experiences. When you work with patients you don’t always have that dynamic. But because Kurt and I are friends, I can. There’s so much to learn about limb loss,” she says.

Watling also has learned a great deal because Alex and Kurt are upfront with her if they don’t think something is working. As with all patients and clients, “PTs need to listen to people with disabilities, because they truly know their bodies,” she says. “We have the education and the knowledge, but we have to remember that we’re not the ones experiencing the disabilities.”

Yaeger says this input has helped him. “Because I was doing more core work, my body was less sore after working for 16- or 20-hour days on the set. These exercises helped. From a strictly acting perspective, a majority of what you do is movement. When you improve that, people can tell, because they’re watching the nuances of your performance,” says Yaeger. “This gave me more confidence, and confidence is everything in acting.”

**Changing Roles**

Actor Rachel Handler was just getting her start in professional musical theater. Having graduated from Westminster Choir College, she had performed in musicals at Bucks County Playhouse in Pennsylvania and the Princeton Festival Opera in New Jersey. She had moved to New York City and was auditioning and getting callbacks.

“When my accident happened,” she says.

Handler was in a car accident in 2012 and lost her left leg below the knee. While in inpatient rehab, she received physical therapy to gain certain skills, such as walking on crutches and reacting to a fall. A few months later, after getting her prosthetic leg, she began doing strengthening exercises for the muscles in her left leg, as well as balance and gait training.

While recovering at home, Handler did a web search for “actors with disabilities” and “performers with prosthetic legs.” “I learned that there were organizations that specifically help people with disabilities get into performing arts careers. So I felt like it was still possible to do that,” says Handler. As soon as she could, she moved back to New York and resumed auditioning for musicals.

Handler realized that remaining in musical theater would be difficult with limb loss. In addition to all the walking she would have to do around New York City, if she had a dance call, it could be tough for her. “I was figuring out how to adapt to my — and I hate this word —limitations,” she says.

She instead focused on acting in TV shows and movies. Her biggest role to date, and the one she’s most proud of, was playing Molly Lindell, aide to a member of Congress, on “NCIS: New Orleans.” She’s also appeared on “New Amsterdam,” “Goliath,” “Blue Bloods,” “Law & Order: Special Victims Unit,” “Elementary,” and other shows. In the comedic horror film “Smothered,” Handler wore a blade leg, the kind used for running, even though her character...
didn’t run. “They just thought it looked really cool,” she says.

During her recovery — and even now when she needs a “tune-up” — Handler worked with Sue Callaghan, PT, at Hackensack Meridian Health, JFK Johnson Rehabilitation Institute, in Edison, New Jersey. “I not only physically feel healthier because I’ve gone to physical therapy, but I feel better mentally because my body is healthier, stronger, and working in all the right ways,” explains Handler. “It’s been helpful for auditions because actors have to be at the top of their game.”

Callaghan works a lot with actors who have experienced limb loss. “One of the biggest things they’re looking for is an advanced level of balance, because they will be asked to do so many different things on a stage or in an audition,” she says. “They have to be prepared for the unusual. I don’t limit anyone when I’m working with them by imposing preconceived goals on them.”

**The Continuing Fight For Inclusion**

While there are roles for actors with disabilities, the actors in this article maintain that there aren’t enough.

Grubba has worked for years to help others in her field. “I’ve had to battle a long time and basically change my whole industry so I could work as a female with a walking disability,” she says. She remembers times when people in the industry would be upset when an actor with a disability would come into a room. “They used to recoil, as if the person was contagious,” Grubba says. “Now we’re starting to see people with disabilities all over the screen. We’ve been fighting for inclusion in our industry. It’s important for us to see people with disabilities portrayed realistically — because when they’ve been portrayed so poorly in film and on television, it contributes to the fear of, and poor treatment of, people with disabilities throughout the world.”

Mitte has seen an increase in roles for actors with disabilities, but some of them are contributing to what he calls “artificial diversity.”

“Artificial diversity is when a production company provides individuals with disabilities with acting opportunities because they have to,” he says. “The plus side is that more people are working, creating, having opportunities, and getting paid. The downside is that these can be ‘throwaway roles.’”

His disabilities, Mitte notes, do not define him. “That is an aspect of who I am,” he says. “That is not who I am.”

Barone takes a wider view. “I think there should be more actors with disabilities in all roles,” he says — not just playing the parts of people with disabilities, but getting roles that may have been written for people without disabilities. Because in real life, when you go to the doctor’s office, your physician could have three fingers or be in a wheelchair. It’s just life. The entertainment industry and film and TV are mixing things up, for sure. It’s increasing, so I’m excited,” Barone says.

According to “The Ruderman White Paper on Employment of Actors with Disabilities in Television,” released in 2016 by actor Danny Woodburn and Kristina Kopić of the Ruderman Family Foundation, people with disabilities make up 20% of the population but fewer than 2.2% of TV characters. Of those, 95% are portrayed by actors without disabilities.

“We’re making huge strides, but there’s still a long way to go,” says Handler. “I have friends who are auditioning every day during pilot season. I’m lucky if I can get two auditions a month.”

Yaeger is a member of the SAG-AFTRA (Screen Actors Guild, American Federation of Television and Radio Artists) Performers with Disabilities Committee. The panel is working to expand inclusion.

“Not only are actors with disabilities often overlooked, but about 30% of casting offices aren’t ADA-compliant,” he says. And there’s another reason more actors with disabilities aren’t included in productions. Most writers don’t write characters with disabilities into their scripts because they’re not disabled themselves. “It’s not on their mind,” Yaeger says.

Barone agrees. “We need more writers with disabilities, because writers write what they believe to be true,” he says. It’s why he and Yaeger have created their own show called “Tommy n Bobby.” “On TV, if you have a disability, it’s related to war, military services, or a bad accident, which sort of stands to reason. But I think things could be more creative. After all, we live in the land of creativity.”

“It seems as if too many people — in my industry and elsewhere — still don’t understand and appreciate the fact that people don’t know that people with disabilities live full, normal, emotionally connected lives,” says Yaeger.

Michele Wojciechowski is a freelance writer in Baltimore, Maryland, and frequent contributor to PT in Motion.
Institutionalizing Inventiveness

A growing number of schools that offer DPT and pre-physical therapy programs are exposing their students to strategies for inventing and innovating, from concept to production and marketing. And the programs’ goals reach well beyond the invention itself.

BY DONALD E. TEPPER
Some DPT students across the country are learning about more than physical therapy.

At the University of North Georgia (UNG) in Dahlonega, they can opt for a traditional research sequence or choose to work on a project led by a professor with an engineering degree.

At Purdue University, undergraduate health care students work on engineering projects and in a lab under the direction of an engineering professor. They also can learn how to commercialize those projects.

At Northwestern University’s Feinberg School of Medicine, students can combine their DPT with a PhD in engineering.

Those are just some of the many growing options that physical therapist students have to expand their knowledge and experience to embrace inventions, engineering, and entrepreneurship.

Allison Duckett, a DPT student at UNG, describes her initial interest in physical therapy and her subsequent involvement with engineering.

“My grandmother had a stroke and I wasn’t able to help. A physical therapist helped her walk again. That got me interested in physical therapy. I chose UNG,” she says, “because it offered the choice of an innovative alternative to the traditional path. It’s a unique experience I couldn’t have received elsewhere. It opens your mind. I’ve also learned a lot about the entrepreneurial point of view.”

Fallan Pham, also a UNG student, followed another familiar path to the innovative program — personally experiencing the benefits of physical therapy. “I was injured in high school — a shoulder impingement. I chose UNG partly because I’m a homebody and this is close to my home. At the time, the school had a program that worked in coordination with engineering students at Georgia Tech. And it conducted a pro bono clinic.

“I chose the IDEA4Rehab option — the engineering route — because I wanted to see the impact that physical therapy could have on individuals,” Pham continues. “I like to work with patients with neurological issues, and the patient with whom we’re working on our project has cerebral palsy. I wanted to help him function better in his daily life.”

IDEA4Rehab is a compound of IDEA—short for Innovation, Development, Evaluation, and/or Application — and 4Rehab, a focus on a product or service for or related to rehabilitation. The multisemester sequence of courses involves literature searches, guest speakers, field trips, and product research and development.

The program was developed by Teresa Conner, PT, PhD, MBA, who from 2014 until 2019 was founding dean of the institution’s College of Health Sciences and Professions. She came to UNG with a background in research and product...
development. In a previous position at Winston-Salem State University she had worked with medical device companies, startups, and investors, ultimately developing a proprietary patented device.

In 2015, she began UNG’s cREATe — short for “creating rehab engineering and assistance technology experiences” — a week-long conference involving collaboration between students at UNG and the Georgia Institute of Technology, faculty, patients, and business and law experts. That led to IDEA, which became IDEA4Rehab. She was joined by Mary Ellen Oesterle, PT, EdD, who became program chair. Together, they rewrote the DPT program so that students could pursue either the traditional research or the new IDEA track — the latter addressing product design, trademarking, patenting, financing, and the other elements in bringing a product to the market. “The students might not learn all of those steps, but they’d contribute [in some of those areas] to faculty member efforts,” Conner explains.

Leading the IDEA4Rehab program is Andzej Przybyla, PhD. Although he teaches in the Department of Physical Therapy, he’s an engineer, not a PT. The original UNG program partnered with the engineering school at nearby Georgia Tech. Kimberly Castle, PT, PhD, an associate professor in the department, recalls, “It was interesting to hear the students collaborate, with their different vocabularies and mindsets: having our students explain what would work and what wouldn’t regarding physical therapy, and having the engineering students do the same.” However, a funding grant that enabled the partnership expired, ending the involvement of Georgia Tech engineering students. Because UNG doesn’t have an engineering program, the decision was made to bring in someone with an engineering background.

Przybyla explains how he, an engineer, ended up in the Department of Physical Therapy. “I started in mechanical engineering and followed up with biomechanics — specifically, spinal biomechanics and back pain. Then I studied motor control and applied research-based evidence to rehabilitation. I developed a neuro center at Penn State University that’s now used for NIH [National Institutes of Health] clinical trials. In my work, I met many people from the physical therapy department,” Przybyla says. “At UNG the program is smaller and provides a different focus for educating DPT students. But the leadership here was looking to expand and expose our students to both research and innovation. That’s a very valuable experience for students.”

As the course catalog explains, “If the student chooses the IDEA4Rehab track, the focus...is on gaining an understanding of processes involved in the development of product design, prototyping, and testing a prototype. In parallel, the student continues to reassess efforts and progress on the IDEA4Rehab project with the supervision of their assigned core faculty advisor.” One of those advisors is Castle.

She says, “The primary emphasis of IDEA4Rehab is innovation. We want students to think like entrepreneurs — like someone who’s going to produce a product. They hone an idea, get feedback, hone it more, put the product through trials, and even take it to market.” Although none of the products has yet gone commercial — some are working their way through the pipeline — all students are required to at least prepare a poster on their project.

In previous semesters, students have worked on such projects as portable parallel bars to fit in a doorway, a set of interactive steps to encourage children to go up and down them, and a child’s wagon that allows young riders to turn the wheels with their arms. A current project involves working with a man...
with cerebral palsy who can move only his right foot. The man’s brother had modified a television remote control to enable him to spell out letters with his big toe. The students’ goal is to modify the device to make it more effective, and possibly to include “smart phrases” to allow faster communication. “Our projects can be for one person or can be more generic,” Castle explains.

Pham, who is on the team involving the man with CP, elaborates. “He’s very homebound. He’s intellectual and likes to write newsletters and features. We hope to make him more mobile, with a keyboard when he’s out in the community.”

Duckett adds, “Our focus now is on him, but other projects could adapt [our solution] for other people, as well.”

Rachael Walton-Mouw, PT, DPT, an assistant professor at UNG, also is involved with the IDEA4Rehab program. She’s working with students on a mobile app for torticollis and on a device that improves the safety and effectiveness of patient transfers.

“The students conduct a literature review. It’s a bit different from a research literature review. We ask...
whether there is a need for the product," she says. "What do we need to investigate? Is there already a product in existence, or one that can be modified to be safer or more effective? Then we’re into proof of concept. We look into the research. If we find something similar, we have to be agile and pivot. You never start from Point A and get to Point B without a lot of twists and turns. That’s the stage we are at now — figuring out what the project will look like at the end. My group already has had to pivot once. Next semester, we’re going to collect data to prove its viability in the market.”

Actually developing a product is only one aspect of IDEA4Rehab. Other elements involve helping students to think like entrepreneurs.

“When our students enter the program, they aren’t ready conceptually to think about forming startup companies,” Przybyla says. “So, we developed a program of seminars and lectures to address entrepreneurship. We use Atlanta Tech Village — an IT tech hub where someone can rent a desk or an office. We put students in contact with angel investors. I take them to a 3D-printing facility so they can learn the process hands-on. The program is tied as much as possible to research. The ideas should be coming from research or clinical experience.”

Is there room in the DPT curriculum to accommodate this form of research? Conner acknowledges, “When I went down this pathway with this form of research, people didn’t understand why I’d talk to venture capitalists or want to patent a device. People told me, ‘We want to produce good clinicians. We don’t need this innovation.’ This is research involving testing and experimenting, but to an applied end, to a product that actually can help people. I want our students to see how interesting the world can be. I want our profession to be open to that, and not to think that innovation is confined to teaching.”

You never start from Point A and get to Point B without a lot of twists and turns.

RACHAEL WALTON-MOUW

An Established Infrastructure For Entrepreneurs

While UNG’s program may be comparatively new and relies on support from outside entities, other schools have large and well-established infrastructures to support entrepreneurial students. One such institution is Indiana’s Purdue University. While the school itself does not offer a graduate-level physical therapist education program, it does offer an undergraduate pre-physical therapy program.

These entrepreneurial components are available to Purdue students:

➢ The Office of Technology Commercialization oversees one of the most comprehensive technology-transfer programs among leading research universities in the United States. In the past five years, OTC has executed more than 650 agreements involving more than 1,000 different technologies. More than 120 of the agreements were to startups. The Milken Institute, a prominent think tank, ranks technology commercialization at Purdue number one in the Midwest and nationally among public institutions that do not have a medical school. It’s ranked 12th overall in the report “Concept of Commercialization: The Best Universities for Technology Transfer.” OTC is managed by the Purdue Research Foundation.

➢ The 60,000 square-foot Purdue Technology Center, based in Purdue Research Park, was created in 2004 and offers incubation and
shared office services to a variety of businesses. The Purdue Research Foundation connects firms with the university’s intellectual reserves at its various campuses.

The Anvil is a student-run 501(c)(3) nonprofit organization. Its mission is to empower the entrepreneurs of Purdue University and the greater Lafayette, Indiana, community by providing coworking arrangements for founders and startups, as well as mentorship programming and resources.

The Purdue Foundry is an on-campus resource for undergraduates, graduate students, faculty, alumni, and community members to commercialize their ideas or products. Its goal is to help inventors and founders find the value proposition of their idea — what will attract potential customers.

Purdue ranked 12th in the world in 2018 among universities granted utility patents by the United States government, according to an annual ranking by the National Academy of Inventors and the Intellectual Property Owners Association. The Purdue Research Foundation reported that year that the school was issued 126 utility patents — the most ever reported by the university.

Among products and devices developed at Purdue and offered through its OTC are:

- A multifunctional wrist orthotic that uses micromechatronics — systems combining mechanical and electrical principles on a tiny scale — to allow users with no hand function to increase the number of functional tasks they can perform independently.

- An insole sensor that can be inserted into shoes, remaining nonintrusive to the user. It offers a practical method of measuring the full range of forces on the foot.

- A watch that detects respiration rate, heart rate, and oxygen saturation using photoplethysmography — an optical method of measuring volume changes in the body. It also can monitor exercise and disease states — such as drug overdose, asthma, and seizure — that affect respiration, heart rate, or oxygen saturation.

- A smartphone app with custom-designed image-processing software for human movement and sway assessment. It can be used by older adults, athletes, and others with balance disorders such as Parkinson disease.

- A device designed to help prevent loss of bone density and muscle atrophy. Configured as a sleeve that can be worn daily for 30 minutes, it provides mechanical stimulation, encouraging blood flow through the limb.

Xiumin Diao is an assistant professor at the Purdue Polytechnic Institute who works with both undergraduate and graduate students. He explains, “I have graduate students working in my lab. They work on my projects. There also are many undergraduate researchers in my lab, most working on their own projects — self-driving technology, wall-climbing robots, 3D printing, and robotic manufacturing.”

Diao’s particular interest is robotics’ application to health care.

“Traditional robotics technology is pretty mature. By traditional robotics,” he explains, “I’m referring to industries such as automotive. These industries have tried to apply artificial intelligence to make robots smarter, but progress is very limited. I want to see robotics applied to health care not only because we’re an aging society, but also because health care has not attracted much attention from robotic technologies — particularly for rehabilitation and service robots at the hospital or in the home. Those technologies are far behind other robotic applications, especially as far as helping patients is concerned.”

One of the projects on which Diao is working at Purdue is a soft-suit version of an exoskeleton that’s suitable to be worn on human bodies. He notes that during rehabilitation the body often can’t support its own weight. “That’s my motivation, to provide body support to the patient dynamically in all three dimensions.”

**Earning Joint Degrees**

Meanwhile, Northwestern University’s Feinberg School of Medicine in Chicago has partnered with the institution’s McCormick School of Engineering to offer what it says is the only degree in the country that includes both a DPT and a PhD in engineering. Program participants begin in the school of engineering and move on to DPT coursework after passing the
Licensing of Academic Patents: A Significant Contributor to the U.S. Economy

The licensing of university and nonprofit research has made a “significant contribution” to the nation’s gross domestic product, industrial gross output, and employment over the past 22 years, according to a 2019 study commissioned by the Biotechnology Innovation Organization and AUTM, a global nonprofit that seeks to move ideas from research institutions into the marketplace.

The report, “The Economic Contribution of University/Nonprofit Inventions in the United States: 1996-2017,” found that during that period, nonprofit patents and subsequent licensing to industry increased U.S. industrial gross output by up to $1.7 trillion and gross domestic product by up to $865 billion, and supported up to 5.9 million person years of employment.

The report also found that it can take a lot of time — often five to eight years or more — for a product to be commercialized. And it found that “matura-
tion of early stage academic technol-
ogy occurs outside of academia by com-
mercial partners willing and able to con-
tinue the applied research and experi-
mental development needed to bring products to market.”

Benjamin Binder-Markey, PT, DPT, PhD, in a Northwestern news release explained what attracted him to the program.

“I have always been interested in how the body moves, and its ability to rehabilitate and heal itself after injury,” he said. “When I was looking at graduate schools, I wasn’t sure exactly what career path I wanted to follow. Did I want a more engineering/biomechanics research career or a clinical/physical therapy career? When I found this program, I didn’t have to choose. I could do both.”

Julius Dewald, PT, PhD, is chair of Northwestern’s Department of Physical Therapy and Human Movement Sciences. “What is nice about an engineer-physical therapist,” he says, “is that they can talk two languages without an accent: They can talk the engineering language and the movement disorder pathophysiology language, seeing both sides of the equation. In that regard, these graduates are going to be highly sought-after, highly unique individuals.”

Producing Leaders and Collaborators

Ultimately, the profession of physical therapy will benefit even if students in these programs don’t pursue additional engineering knowledge or seek to patent an invention, observers say.

Przybyla asks, “Should our approach be replicated in other DPT programs? I think so. In innovation, it’s all about the process. Successful people become successful because they learn as they go. It’s not something you can learn from a book very well. You need to learn from experience. It would be great if future physical therapists are equipped with some basic knowledge and a bit of experience in developing innovations. It’s not just for them to be innovators, but for them to be in environments that will provide for collaborative efforts.

“Both research and development are ‘must-haves’ in the future,” Przybyla continues. “It helps them develop an understanding of how people in other areas are working. It will help them work with patients as well.”

Conner is equally emphatic. She says, “It’s important for the profession to break out of the mold, to show that we’re not tied to one educational model … one that doesn’t embrace the entre-
preneurial spirit. I love my profession and the world’s better for it. But, from an educational approach, we’re too focused on how we teach, not on innovation and the future of the profession. We’re stuck in the realm of evidence-based practice rather than creating new knowledge and new discoveries. I’ve watched physicians and nursing do this so well. We need meaningful research for what we do. We can’t run in place and do only those things we’ve always done. Innovation will help preserve our profession.”

Donald E. Tepper is editor of PT in Motion.
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Studies Support Cost-Effectiveness of Bundled Care Payment Models for Lower Extremity Joint Replacement

Two recent studies took different approaches to looking at bundled care models used by the Centers for Medicare and Medicaid Services. Both concluded that the programs save a modest amount of money without sacrificing quality. A systematic review of research on bundled care calculated savings ranging from $591 and $1,960, while a study of multiple hospital data over three years identified an average 1.6% decrease in episode spending for lower extremity joint replacement — about $377 per patient. Neither study uncovered evidence of reduced-quality outcomes. Both studies were published in Health Affairs in January.

apta.org/PTinMotion/News/2020/01/08/BundlingStudiesHealthAffairs/

Researchers Say Every Human May Have a Unique Muscle Activation “Fingerprint”

Researchers who carefully tracked muscle movements of study participants during exercise found that humans possess muscle activation “signatures” that are as unique to each individual as are fingerprints or iris structure. Not only could these patterns be used to identify an individual, say the authors of the study, published in October in the Journal of Applied Physiology, but a person’s activation signatures could help identify the potential for future musculoskeletal problems and better tailor treatments to individual patient needs. Earlier studies have established that movement patterns such as gait can be consistently linked with individuals — a kind of signature — but those studies stopped short of looking at muscle activation strategies that may influence the movement pattern. The authors believe their study is the first to look into activation itself as a biomarker.

apta.org/PTinMotion/News/2019/11/18/MuscleActivationSignature/

Small Study Points to Big Student Debt Loads for PTs

A limited study based on survey responses from early-career PTs and PTAs in Florida found that the average amount of educational debt owed by entry-level PT respondents is equal to almost two years’ average salary, a 197% debt-to-income ratio. That’s more than the average debt-to-income ratio for newly minted family medicine physicians and veterinarians, and a burden that may affect a PT’s choice of practice setting, says the study’s author. The most frequently reported debt amount related to the DPT ranged from $100,000 to $124,999, with “relatively small” amounts of pre-DPT or non-educational debt reported. Average (mean) salary for respondents was $69,328. Salaries ranged from $55,000 in a school setting to $82,659 in a home health setting. The study was published in the December 2019 issue of PTJ.

apta.org/PTinMotion/News/2019/12/31/StudentDebt/
Here are a few recent examples of the association’s efforts on behalf of its membership, the profession, and society.

Public Awareness for Physical Therapy Debuts on Broadway

APTA has launched digital billboard advertising in New York City’s Times Square that debuted during the world-famous New Year’s Eve celebration and will continue to run through the end of March. The 15-second ad appears on two adjoining screens at the corner of 43rd Street and Broadway, running at least 20 times per day. The larger screen plays a series of brief video clips that evoke the positive human experience of movement, with a message that says, “Choose to ride. Choose to dance. Choose to love. Choose to play. Choose to climb. Choose to thrive. Choose physical therapy.” The left screen issues a call to action: “For what moves you, find a physical therapist at ChoosePT.com.”

apa.org/PTinMotion/News/2019/12/19/ChoosePTTimesSquare/

Associations Speak Out on Home Health PDGM

APTA, the American Occupational Therapy Association, and the American Speech-Language-Hearing Association have issued a joint statement on the Medicare Part A Patient-Driven Groupings Model (PDGM), the new Medicare Part A payment model that began for home health agencies on January 1. The statement summarizes a central point that the three organizations have been driving home since PDGM was finalized: that the new model does not change the requirements that home health agencies provide high-quality, reasonable, and necessary rehabilitation services, and that clinicians use clinical judgment in determining appropriate frequency, duration, and modality of services. The statement warns against agencies making “unnecessary staffing changes” as a result of PDGM.

apa.org/PTinMotion/News/2019/12/20/PDGMJointStatement/

New CPG Focuses on Interventions for Those With Acute-Onset CNS Injury

A new clinical practice guideline (CPG) supported by APTA and developed by the association’s Academy of Neurologic Physical Therapy concludes that when it comes to working with individuals who experienced an acute-onset central nervous system injury 6 or more months ago, aerobic walking training and virtual reality treadmill training are the interventions most strongly tied to improvements in walking distance and speed. Development of the CPG was supported through an APTA-sponsored program that assists association sections in development stages such as drafting, appraisal, planning, and external review. The guideline was published in January’s issue of the Journal of Neurologic Physical Therapy.

apa.org/PTinMotion/News/2020/01/07/LocomotorCPG/
INNOVATIONS IN ONCOLOGY REHABILITATION

In a special March issue, PTJ and guest editors Kirsten “Kiri” Ness, PT, PhD, FAPTA, and Laura Gilchrist, PT, PhD, set the stage for the future of physical therapist management of people who have or are long-term survivors of cancer. “With more than 15 million people in the United States having cancer or a history of cancer,” notes Alan Jette, “this special issue has relevance for every physical therapist’s practice.”

As Ness and Gilchrist point out in their editorial, “although cancer is the second leading cause of death in the United States, advances in treatment and hospital care have improved survival such that 67.1% will survive 5 years after diagnosis.” Because treatments can affect function at the cellular and organ level, cure has consequences; however, rehabilitation can ameliorate many of the problems, both during and after treatments, and the Institute of Medicine recommends rehabilitation for all people with cancer diagnoses. Unfortunately, many people do not receive it.

There are many reasons for this deficiency, say Ness and Gilchrist, but lack of evidence to support intervention effectiveness is a primary factor.

“The literature in this arena is still in its infancy. Reliable and valid standardized measures that accurately capture physical function are lacking across both descriptive studies and clinical trials,” they note, “and perceived well-being is often substituted for quantitatively measured function. Tested models of cancer care are scarce, and evidence-based interventions with proven efficacy are time and labor intensive.”

This special issue of PTJ frames the problems and fleshes out solutions:

- Through their research, Ten Tusscher and colleagues make a case for incorporating specific oncology content in professional physical therapist education.
- Flores et al, Fisher et al, and Defeo et al delve into specific impairments or limitations in physical function – lymphedema, upper extremity strength, and osteonecrosis – in survivors of cancer.
- Barnes et al share their research on clinically integrated physical therapist practice in cancer care.
- Guo et al illuminate spinal precautions for patients who have cancer and spinal metastasis.
- In their randomized controlled trial, Hansen et al explore the effectiveness of both physical therapist and occupational therapist intervention in people who have glioma and are undergoing active anticancer treatment.
- In a systematic review of randomized controlled trials, Campbell et al synthesize the literature on the effect of exercise on cancer-related cognitive impairment and applications for physical therapy.
How Understanding Personality and Communication Styles Can Improve Patient Care

Have you ever said one thing but the person you were talking with heard something else entirely? I think that we have all been there.

Communication can be tricky, but it is crucial as physical therapists and physical therapist assistants that we constantly work on and improve our communication skills. We are in a unique position to educate people in how they can reach their goals and achieve optimal health, but if we aren’t speaking the same language, then that message can get lost in translation.

Personality type and communication preferences can provide us with some useful insight in how we adjust our communication delivery and message to meet our patients where they are. There are many valuable personality inventories that will help you figure out what works best for you as well as for your patients; my favorite is the Myers-Briggs Type Indicator (MBTI). MBTI looks at personality using four sets of opposite pairs on a continuum. These pairs consider how we direct and receive energy (extraversion versus introversion), how we take in information (sensing versus intuition), how we make decisions (thinking versus feeling), and how we approach the outside world (judging versus perceiving).

How a patient communicates and makes decisions, and where on the extrovert and introvert spectrum they land, can affect how they interact with you as their health care provider. Patients who are thinkers tend to make their decisions based on logic. Patients with feeler preferences make their decisions based on values and are typically warm and empathetic.

Although we can’t know exactly what is going on in someone else’s head, what we can do is pay attention to our own communication and how our patients are responding.

Read the full story from September 6, 2019, in The Pulse. apta.org/communicationstyles/
APTA MEMBER VALUE

APTA is committed to giving members tools they can use to advance their careers. One of the association’s most tangible benefits is an array of continuing education opportunities — many free or discounted to APTA members.

Continuing education helps PTs and PTAs enhance their skills so they can provide the highest-quality patient care and meet licensure renewal requirements. If getting in your continuing education courses was on your list of New Year’s resolutions, visit APTA’s Learning Center to learn more about free and discounted courses to enhance your skills and broaden your knowledge across multiple areas.

Beyond our own courses, APTA gives you access to our designated CE Affiliates — other providers of continuing education. Recently the association teamed up with MedBridge, a provider of online health care education. The evidence-based content on a wide range of topics is presented by highly regarded instructors in the physical therapy profession.

APTA members are eligible to receive a significant discount off the regular subscription price. A subscription includes access to thousands of continuing education courses, live webinars, the MedBridge certification prep programs for certain American Board of Physical Therapy Specialties clinical specialization areas, and the ability to create home exercise programs and assign patient education — all within the same platform.

Check out APTA’s Learning Center to find out about these and other CE Affiliate courses. Want even more learning opportunities? APTA’s Passport to Learning subscription offers multiple selected APTA courses for a single price. Take advantage of free and reduced rates to expand your skills in 2020.

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I am a pediatric physical therapist. I embrace and integrate the contemporary neurodevelopmental treatment (NDT) practice model, as defined in the textbook “Neuro-Developmental Treatment: A Guide to NDT Clinical Practice,” into my treatment planning. I do so based on a defining moment I experienced when I was a PT student at Northern Arizona University.

One of my professors was Carl DeRosa, PT, DPT, PhD, FAPTA. His directive “Do what works” made an indelible impression on me. I use an NDT treatment model because of my clients’ favorable outcomes. I have worked with many children who have made functional gains in their skills and have improved their participation at home, in school, and in their community as a result of my using the NDT framework for critical thinking.

More recently, some less than favorable journal articles have addressed the use of NDT with children with cerebral palsy. These pieces do not represent the NDT treatment model that I and many other therapists — pediatric and adult — use. While early NDT theory was grounded in a hierarchical/neuromaturation model, the practice model has evolved along with our understanding of neuroscience. My NDT knowledge base is rooted in current theories of neurorehabilitation and neuroplasticity.

I have deepened my understanding of motor control, motor learning, motor development, neuroplasticity, and how the brain adapts and changes to produce functional movement based on a goal that the person values. I appreciate how well my NDT mentors have integrated the most current theories for the “why” in neurorehabilitation into their teaching, education, and practice.

My foundational skills for all my clients are built on the concept of alignment relative to the individual’s base of support and center of mass. The goal is more efficient posture and movement centered on a functional task or goal. I
am very aware of posture and how my clients are organizing themselves for function from their base of support. This focus on alignment facilitates ease and efficiency of movement for enhanced function.

Insufficient attention to this concept promotes an atypical posture. This eventually results in less efficient and less functional movement patterns. With NDT, I use my knowledge of typical movement, postural control, and motor development to guide my treatment progression. I am aware of how each client’s center of mass is aligned over the base of support. I ask, “What is the potential for movement? Is it efficient and effective for function now and in the future?” I recognize the need for a lifespan perspective.

I use manual handling as both an assessment tool and an intervention that facilitates active assistive movement, enhances sensory reception, and guides movement. My goal is to decrease my tactile, verbal, and visual cues so that my clients’ movement increasingly is internally driven.

I encourage active problem-solving to promote increased variety of movement. I empower my clients to challenge themselves. I address body structures and functions in my treatment plan — in context, per NDT — for more efficient and effective movement and posture to enhance function and participation.

NDT originally was developed as a treatment approach for children with cerebral palsy and for adults who had experienced a stroke or head injury. As a pediatric PT, my application of NDT has expanded beyond children with cerebral palsy to those with a wide variety of neuromuscular diagnoses. It’s a framework for how I approach assessment, evaluation, and treatment.

My clients have a variety of needs based on their unique
Defining Moment

body structure and function, where they live and play, and their specific functional goals. I have experienced many “aha” moments while working with them.

M.K., for example, wanted to be able to pass a ball on a rope to a peer during a game. With NDT guiding my analysis of her movement and posture, I determined that she needed to use her core strength to stabilize her trunk and use her arms more freely. She then could move the ball along the rope without pulling her friend over. She was now using her arms while stabilizing with her trunk to control her postural control—creating a “V” (shoulder horizontal abduction and flexion with elbow extension), versus a “U” (shoulder abduction and extension with elbows flexed) with her arms to move the ball along the rope to her friend.

M.P.’s goal, meanwhile, was to shoot hoops with her peers and participate fully in recess activities. My history with her started when she was a toddler. We worked together on addressing her posture and movement in learning to walk — first with a walker, then gradually decreasing the required level of assistance. I have focused on enhancing her active problem-solving to increase her speed, efficiency, and, most important, her confidence on the playground. Together, we have integrated bimanual control of her arms and legs, which enables her to make the most of her attempts to shoot the basketball for height and accuracy.

I’ve worked on improving the overall balance and postural control of another client, S.S., by analyzing her alignment relative to her center of mass and base of support. The initial goal was for her to be able to walk into the clinic while holding her mother’s hand instead of being pushed in her wheelchair. She is now working toward holding her younger sister’s hand, which allows their mom to walk into appointments with their daughters without use of a S.S.’s walker, stroller, or wheelchair. S.S. once needed a walker to navigate the beach. She now runs on the beach, chasing waves.

Working collaboratively with my clients and their families, I’m constantly evaluating and reevaluating outcomes. While my theoretical understanding of why neurorehabilitation science has changed, I continue to integrate a contemporary NDT practice model into my sessions. The reason? Because it works.

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PT in Motion Asks…

What one thing would encourage more patients to seek physical therapist services?

α: Annual physical therapy visits as well as physical therapists affiliated with primary care physician offices or buildings would foster relationships with patients over long periods of time, decreasing barriers to finding a physical therapist and encouraging patients to seek treatment. It’s easy to go back to a clinician you already know and get that nagging knee pain treated.
– NATAILIE ANZURES, PT, DPT, MS

α: Clear understanding of what a physical therapist offers.
– JUDITH DEUTSCH, PT, PHD, FAPTA

α: Show them examples of the difference made by physical therapy: Compare an advertisement for bladder leakage undergarments with seeing a physical therapist for urinary incontinence.
– GARY KRAISIOWSKY, PT

What is the most significant change you’ve seen in physical therapy in the past 10 years?

α: Focus from other disciplines and the public on how effective and important our profession and outcomes really are. Before, our patients and those we directly worked with were primarily the only ones exposed to our profession.
– WILLIAM STOKES, PT, DPT

α: More interest in research.
– MOHAMED HASSAN, PT

What qualities or benefits do you most look for when choosing a DPT program?

α: I suggest that prospective students research the faculty teaching the core classes. I was once told by a mentor, “You can only become as smart as the smartest person in the room.” If you want to pursue a career of excellence, launch it by being educated by individuals who have pursued excellence themselves.
– COURTNEY HULBERT, SPT

APTA encourages diverse voices. To give members a chance to share their insights and wisdom with colleagues, PT in Motion poses questions that any member is invited to address, and publishes selected answers. To participate in “PT in Motion Asks…,” log in to the APTA Engage volunteer platform at https://engage.apta.org and create a profile. Find the “APTA National – PT in Motion Magazine Member Input” opportunity, review the rules for submitting, and click the Apply Today! button. You’ll see a list of the questions and can respond to as many or as few as you wish in the space provided. We look forward to hearing from you and sharing your comments in future issues.

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