Don’t Miss!

- **PT in Motion** magazine’s coverage of CSM 2018 will appear in the May 2018 issue. Watch for your mailed copy in early May, or read it online at the end of April.
- **Combined Sections Meeting 2019** will be held in Washington, DC, January 23-26, 2019. Join us in the Nation’s Capital!

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End the Coddywompling, Cerasoli Lecturer Urges

By Don Tepper

Physical therapy education must stop coddywompling—slang for traveling in a purposeful manner toward a vague destination—and instead should begin traveling in a purposeful manner toward an intentional destination. That was the message delivered by Jody Frost, PT, DPT, PhD, at the Pauline Cerasoli Lecture.

She asked the audience to reflect on the changes that have occurred in physical therapy during the past 20 years: “Looking in the rear-view mirror, what have we learned? With Vision 2020, we understood it was the profession’s intention to transition to the DPT degree. Did we imagine that in 20 years the number of high-quality applicants to PT programs would nearly double or that program development would accelerate? Did we anticipate a decline in PTA enrollment? Did we imagine that the average number of clinical sites affiliated with a PT program would more than double to nearly 600 sites or that DPT programs would decrease in length?...How well did we plan for an aging professoriate and leadership as baby boomers reach retirement age?...Did our past 20 years embody Coddiwomple—travelling in a purposeful manner toward a vague destination? You be the judge.”

Frost then suggested factors that can influence the future of physical therapy education. Among those already affecting the profession and certain to have an even greater impact are disruptive innovation and new technology, big data analytics, and relationship transformation.

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Opening Ceremony Attendees Urged to Take ‘Exquisite Risks’

By Don Tepper

The American Board of Physical Therapy Specialties (ABPTS) opening ceremony speaker Theresa Spitznagle, PT, DPT, MHS, declared, “We should consider a shift in our clinical values. We can do a lot for our patients with very little resources. Simple can be profound.” Spitznagle, immediate past chair of ABPTS and a board certified women’s health clinical specialist, spoke on February 21.

The theme of her remarks, “Exquisite Risk: Reflections on Professional Values,” focused on the dual meaning of the word “exquisite”—suggesting both the beautiful and the intense. Speaking to those who had earned accreditation, she said, “I wondered: Why did you take this exquisite risk? It was not easy. Was there a benefit for you? For your patients? For our society? For societies beyond our own?” She suggested that the motivation often was a combination of all those.

She congratulated the newly accredited PTs: “You took this exquisite risk. And it paid off!”

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CSM provided a backdrop for networking and group gatherings.
Treating Patients With HIV

Fociuses on Independence, Pain Management, Quality of Life

By Deb Nerud Vernon, BS, MA, EMTP

Although we may not hear about HIV and AIDS as much as we did 25 years ago, the virus is still prevalent. On February 23, Sara Pullen, PT, DPT, MPH, Roberto Sandoval, PT, PhD, David Kietrys, PT, PhD, and Mary Lou Galantino, PT, PhD, MS, MSCE, presented the Oncology Section session “HIV in 2018: It’s Not Over Yet—What Every Physical Therapist Needs to Know.”

Pullen said the goals for working with a patient with HIV should be the same as working with any patient—increasing functional independence, decreasing or eliminating pain, independent self-management of impairments, and improving quality of life. “Although there are many potential side effects, you must advise your patients not to stop taking their drugs,” cautioned Pullen. “Stopping antiretroviral therapy (ART) allows HIV to multiply and become resistant. By doing this, patients may be put on ART again, which they may be resistant to.”

Pullen stated that when working with patients who have chronic pain, communication is key. “PTs can help to manage chronic pain with exercise, transcutaneous electrical nerve stimulation, and manual therapy.”

As people living with HIV are living longer, they are at an increased risk of comorbidities such as cardiovascular disease and stroke, osteoporosis and fractures, metabolic syndromes and diabetes, renal disease, neuropathy, malignancies, and geriatric syndromes, said Galantino.

Patients with HIV also present with wasting syndrome, lipodystrophy, and frailty, Galantino noted, reflecting changes in their diet. “It is important for these patients to eat properly,” she said.

A moderate exercise routine will help the body turn food into muscle, she continued, citing a 2008 systematic review that reported increases in body weight and arm and thigh girth resulting from progressive resistive exercises either alone or combined with aerobics. “These exercises appear to be safe,” Galantino said, “and may be beneficial for medically stable adults living with HIV.”

Managing Wrist Injuries for Better Function

By Deb Nerud Vernon, BS, MA, EMTP


To assess for extrinsic tightness, Valdes said to have the patient make a fist with the wrist in neutral and then in full flexion. “If the motion is greater with the wrist in neutral, extrinsic extensor tightness is present.” To assess for extrinsic flexor tightness, Valdes said to have the patient straighten digits with the wrist in neutral and then with wrist fully extended. “If finger extension is greater with the wrist in neutral, then extrinsic flexor tightness is present.”

Valdes mentioned many available tests and techniques for assessing various modalities after a distal radial fracture, including the Figure of 8 technique, the Ten Test, and the Patient-Rated Wrist Evaluation (PRWE).

Valdes suggested that when assessing patients in the first week after fracture, clinicians should concentrate on edema-reduction techniques. “Start early edema reduction and passive range of motion (ROM) to stiff noninvolved joints. Caution the patient not to wiggle their fingers but rather to stretch to full extension.” During week 2, concentration should be on scar management and edema reduction. “You may begin gentle active ROM of the wrist with surgeon approval. And at week 6 you want to initiate splinting for mobility and begin to wean them from a static control splint.”

In treating a scapholunate dissociation, Valdes suggested a multiphase approach. During the “protective phase,” the wrist is immobilized for 4-8 weeks. Finger ROM and tendon gliding exercises may be done. The “mobility phase,” from 8-12 weeks, can include intermittent use of orthosis. “Begin AROM of the wrist. Start with a dart throwers path of wrist motion until well tolerated, and then at 10 weeks start with isometric strengthening.” She cautioned against using repetitive loaded wrist motions, power gripping, or axial loading in pronation.

The lunotriquetral tear is a frequently seen carpal instability, said Valdes. “These acute injuries should be immobilized 3-8 weeks in, with a short arm or above-the-elbow orthosis, which eliminates forearm rotation…..Finger ROM and digital tendon gliding can be used during this time.” She added that between 4-10 weeks, a removable orthosis to protect the wrist against stress during ADL is useful and that isometric exercises are better tolerated than isotonic exercises.
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Over the past several years, Medicare and commercial payers have moved toward value-based care (VBC) models to determine payment—shifting from payment based solely on the volume of care, such as traditional fee-for-service, to payment more closely related to outcomes. While changes in some federal approaches have slowed the pace of specific efforts, the overall trajectory still moves toward making providers accountable for the outcomes of patient care.

Three Section on Health Policy and Administration sessions ran through the alphabet of Medicare updates on February 23 and 24. “Emerging Issues in Medicare” (2 sessions) and “Strategies for Implementing Performance Measures in Value-Based Payment Models” featured speakers Stephen Hunter, PT, DPT, Bridget Morehouse, PT, Alice Bell, PT, Kara Gainer, JD, and Heather Smith, PT, MPH.

APTA staff Bell, Gainer, and Smith stressed that physical therapists (PTs) and physical therapist assistants (PTAs) need to be familiar with the ongoing changes and understand the goals behind them. They offered overall descriptions as well as specific instructions and suggestions for complying with each of the new rules, also referring to APTA and agency resources for more details. (APTA’s Medicare webpage is a good place to start: www.apta.org/Payment/Medicare/CodingBilling/)

Among the issues covered:

- 2018 Medicare physician fee schedule (PFS), including changes to CPT code values, and new or revised codes
- Permanent fix to the therapy cap, and the future differential in payment for PTA services
- Prospective payment system updates for home health, skilled nursing facilities, inpatient rehabilitation facilities, and long-term care hospitals
- Postacute care payment reform efforts toward a unified payment system
- The Medicare Targeted Probe and Educate Program
- Change from the S9 modifier to 96 and 97 modifiers for habilitation and rehabilitation services
- Medicare Quality Payment Program (QPP), including the Merit-based Incentive Payment System (MIPS) and Advanced Alternative Payment Programs (APMs)

In addition, Hunter, Morehouse, and Thigpen shared takeaways from their implementation of VBC programs that incorporated performance measurement. Knowing a patient’s likelihood of achieving clinical improvement can impact the PT’s clinical decision-making, Thigpen said.

From a private payer perspective, Morehouse said companies could save “a ton of money if they look beyond number of physical therapy visits” and realize the savings from fewer MRIs, surgeries, and opioid prescriptions (with the potential costs for treating abuse).

Hunter noted the challenge of getting accurate data on who’s providing the care. “You’ll know who signed the note,” he said, but any other PT or PTA who provided treatment needs to be identified, too.

How to Include Women’s Health in a Curriculum Without Adding Academic Bloat

By Don Tepper

How can a DPT curriculum add women’s health content while retaining other needed and desirable courses? Two physical therapists (PTs) described their solution: Make a single course do double duty.

Skye Donovan, PT, PhD, and Carrie Pagliano, PT, DPT, explained their strategy in the Academy of Women’s Health Physical Therapy session “Women’s Health in a DPT Curriculum: Integrating Without Adding to Academic Bloat.”

Professional education programs already are constantly challenged with meeting the demands of advancing evidence, innovative practice, and entry-level practice standards. Curricula may be suffering from “academic bloat,” as clinicians and students demand exposure to emerging areas of practice, while emphasis still is needed on an already long list of content areas.

Donovan and Pagliano said they realized they could take many modules in the current curriculum and replace them with modules that address those same areas, but from a women’s health perspective. For example, CAPTE guidelines include topics—including genital, reproductive, lymphatic, and systems interactions—that could encompass women’s health. Further, the national physical therapy exam, while containing few questions relating specifically to women’s health, includes questions that potentially could be addressed in women’s health courses.

Pagliano explained, “In geriatrics, we found a relationship between falls and urinary incontinence, because the patient may get up 5-6 times a night. The module can focus on why they’re getting up.”

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Two physical therapists (PTs) told CSM 2018 attendees about their experiences in setting up and running health programs designed for employers and their employees. Russell Certo, PT, is the founder of the MOG Group—MOG being an acronym for “medically oriented gym.” The MOG Group is a co-op of MOG sites owned by independent PTs and provides a central place for these sites to share policies, procedures, and business practices. The other panelist, Tracy Evin, PT, is the founder of the Center for Physical Rehabilitation.

Certo said, “Companies in the vanguard of containing health costs do it by managing health,” adding that “employers are uniquely positioned to affect the health of their workforces.” He criticized large health care systems and “big insurance,” observing that “the health of communities continues to deteriorate despite the pseudo-attempts at prevention programs by ‘big insurance’ and health care systems. There is little incentive for change; less-than-optimum health drives higher premiums and the need for more services.”

The solution, Certo suggested, includes employers negotiating health programs by identifying value providers. “True prevention and wellness programs require expenditure initially,” he said, “and must have individual incentive-based outcome measures.”

Ervin described her development of a worker health care model. One critical element was establishing connecting services with the company’s human resources and safety departments, in addition to gaining support at the executive level.

Also critical is making a dollars-and-cents case to the company’s executives. Ervin cites such figures as the Centers for Disease Control and Prevention’s calculation that the medical costs of people who are obese are $1,429 greater—about 42%—than those of other workers, and that total yearly medical costs and lost wages in the United States due to diabetes are $245 billion.

Ervin also addressed an inevitable demographic trend: the aging workforce. Workers who are older experience fewer injuries than younger workers, she indicated, but those injuries tend to be more serious, resulting in longer absences from the job.
Using Causal Models to Develop Knowledge-Based Practice

By Lois Douthitt

Scientists claiming “Your practice isn’t evidence-based,” and a clinician countering “Your evidence isn’t practical,” likely resonate with physical therapists (PTs) on both sides of the theoretical argument. In his delivery of the Cardiovascular and Pulmonary Section’s Linda Crane Lecture on February 22, Sean Collins, PT, ScD, asked the audience to consider just how wide the gap is between them—to what extent can practice be evidence-based, and to what extent can research be practical?

Setting up his discussion for the lecture, titled “Synthesis: Causal Models, Causal Knowledge,” Collins described ontology—the ways things are—vs epistemology—the way things are known. The concept of critical realism, in which the human mind is part of the process of knowledge, is premised on the claim that ontology determines epistemology. In other words, what is real is still real even if every aspect of the reality hasn’t empirically been verified.

Collins asked the audience to think about knowledge-based practice in such a way that would balance 2 facts: “Acting with less than perfect knowledge is part of the risk of being human”; and “in the clinical setting everything we do is an action—even inaction is an action—based on a decision.” He called it “the clinician’s dilemma.”

Further, clinicians are faced with all sources of variation at the same time while dealing constantly with the full burden of the complex system. To illustrate, Collins said to suppose that a clinician is considering 2 interventions, each with 2 possible states—do or don’t do the intervention. There are 4 possible alternatives. With 4 interventions there are 16 alternatives, and so on. “But why encode the interventions as only yes or no? Why not high, low, or no,” with 2,187 possible alternatives? Or even “high, medium, low, or no” with 16,384 alternatives, and so on? Taking a purely empirical approach to verify all the alternatives isn’t practical and won’t resolve the clinician’s dilemma, Collins argued.

Causal models (abstract models that attempt to describe cause-and-effect relationships among a group of variables) provide a bridge for knowledge development in the profession, Collins said, as opposed to evidence that identifies empirical connections and is then translated to the clinician.

“Causal models represent a synthesis of knowledge-based practice,” he said, in which the models fit with reality “even when we cannot empirically verify each and every component of such models; but where knowledge assumptions that are encoded in the models are clear, combine knowledge with reasoning, and are subject to empirical verification when possible. Let’s use causal models to provide a synthesis of what we know, to develop causal knowledge from which to further develop with empirical evidence, and from which knowledge we can practice.”

Opening Session

However, I wonder what will be your next exquisite risk….I believe that reflecting over our clinical experiences allows us to better serve our patients and, at the same time, put our professional values into action.”

Spitznagle then addressed the core values of physical therapy of accountability, altruism, compassion, excellence, integrity, professional duty, and social responsibility. She noted that in a 2016 study of physical therapists (PTs), “the values of integrity, compassion, and accountability were well integrated into their practice. These 3 values were considered ‘innate and part of why they chose to become a physical therapist.’” The other traits didn’t fare as well, with only 20%-25% of respondents engaging in activities that reflected altruism and professional duty. Social responsibility was embraced by only 5% of the PTs.

She asserted, “If social engagement was better developed as a core value, more of us would engage in pro bono care.” She also explained that what “delighted” her most from her experiences serving in Ethiopia was “the recognition of the value of physical therapy in a low-resourced environment…Due to the exquisite risk that I took, I can honestly say that I have seen systemic changes within 1 global physical therapy community.”

“By learning more about the challenges outside of our society, I have developed a greater appreciation for the challenges we face here at home. To improve social engagement, we need to move from an individualistic perspective of our profession to a larger lens that includes interdisciplinary activities and strategies for improving society-level practice.”

Spitznagle concluded by telling the audience, “I hope that you all will consider taking the exquisite risk of social engagement, set a new personal challenge, and adjust your professional goals so that your expertise can benefit others. For the betterment of our communities local and global, I encourage you to take on these exquisite risks.”
Helping Prevent Toxic Stress in Infants

By Don Tepper

The trauma experienced by neonatal infants—those within 28 days of birth—can have lifelong effects, according to Mary Coughlin, RNC-E, NNP, MS. Coughlin presented the Academy of Pediatric Physical Therapy session “Trauma-Informed Care: A New Paradigm for the NICU.”

Pointing out that “you don’t have to be abused to experience trauma,” Coughlin said that individual trauma results from an event, series of events, or set of circumstances that is experienced by an individual as physically or emotionally harmful or life threatening.

Such an event has lasting adverse effects on the individual’s functioning and mental, physical, emotional, or spiritual well-being.

Although she acknowledged that not all stress is bad, even toxic stress may result without health care professionals or parents being aware of the situation. For example, an infant’s stress may arise from maternal deprivation or separation, unmanaged or undermanaged pain, social isolation, or sleep fragmentation or deprivation.

Coughlin cited evidence that 50%-70% of infants born preterm develop behavior problems. Stress and preterm birth can affect neuron formation in the brain and have an effect at the chromosomal level.

Coughlin said, “The secret sauce is maternal care. Parents are integral to the comprehensive care of their hospitalized infants.”

Another important component, Coughlin added, is the knowledge and behavior of physical therapists who can contribute to the prevention of pain and stress in the hospitalized infant.

Porter described several federal initiatives to address chronic pain management. “You can’t take on the opioid epidemic unless you take on efforts for better pain management,” she said. Agencies and programs she described include the National Pain Strategy, National Pain Research Strategy, National Institutes of Health Pain Consortium, and Interagency Pain Research Coordinating Committee.

One challenge is the need for more data. One hundred million American adults may experience pain, Porter said, “but we don’t know if they have access to pain care or what type of access.” She compared PT education on pain management with that of veterinary education, saying it is “exponentially less than in veterinary schools—your pets can get better pain care than you can.”

Gainer described APTA’s many initiatives and efforts toward promoting physical therapy as a nonpharmacological option for pain management. At the forefront is the #ChoosePT campaign to increase public awareness of the benefits of physical therapy. But much more is going on “behind the scenes” as the association advocates for expanded coverage of PT services, smaller patient copays, and more recognition of the role of physical therapy in prevention strategies.

“We talk to the Centers for Medicare and Medicaid Services all the time,” Gainer said, in addition to commenting on proposed rules—even those not directly related to physical therapy; for example, Medicare Part D proposals, to bring up physical therapy as an alternative to drugs.

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Emerging Trends in Telehealth

By Don Tepper

Telehealth and mobile health applications are evolving rapidly, said the presenters of a February 22 Section on Research session, and while they can’t be a substitute for all aspects of physical therapy, they can be more effective and less costly in the right situations than are traditional face-to-face interventions.

Helen Hoenig, MD, MPH, addressed technology barriers to eHealth, as well as work-arounds and longer-term solutions. One challenge is low bandwidth—the inability to transmit enough data to display a patient at a remote location with sufficient detail and movement. “The resolution or the frame rate is reduced,” Hoenig said, “resulting in image ‘freezing,’ or the image is blurred.” Current technology does not allow a health care provider to adjust frame rate and resolution, but sometimes, she said, the solution is to increase one and decrease the other, depending on which is more important.

Another technique is to turn off the audio, which also consumes bandwidth. Hoenig cited several studies that showed high-definition video provides the most useful information. Some studies suggested that the ability to provide both frontal and lateral views worked best, while other studies suggested that high definition was not as critical if both frontal and lateral views were provided.

Another challenge is that mobile rehabilitation also can require an assistant to hold the camera while the patient performs an activity. She explained that some computer programs have been developed to overcome this limitation. In addition, remote sensors are being used to substitute for an onsite assistant.

Other challenges include the large amount of storage space required for video, and security concerns.

Rana Hinman, PT, PhD, described the Australian experience with telehealth, particularly as it relates to osteoarthritis (OA). From a PT perspective, she said, “OA is a patient-driven treatment. There are problems with adherence and behavioral change.” She advised PTs and health care organization considering telehealth to “choose your patient population carefully.” There are obviously implications when there is no physical or hands-on contact with patients. Regarding assessment, are diagnostic tests required? If so, can they be performed remotely? Moving on to treatment, are manual techniques needed? Regarding the safety of patients, are screenings required?

Hinman said that setting expectations is relevant for both PTs and patients. For example, a widely held belief among patients is that all physical therapy requires hands-on treatment. Meanwhile, referring to 1 study, she said, “PTs thought they knew how to communicate with patients. But they realized by the end of training that they didn’t.”

Kristin Archer, PT, PhD, cited studies showing that interventions via telehealth can be just as effective as in-person interventions. “We found that it can be more effective and less costly [than in-person contact],” but she conceded, “It takes some work for our communications styles.”

Archer offered tips to enhance telehealth’s effectiveness, such as providing clear instructions, picking the right device, and training in active listening.

TENS Offers ‘Electroanalgesia’ as A Nonopioid Way to Manage Pain

By Deb Nerud Vernon, BS, MA, EMTP

Headlines shout about the misuse and abuse of opioid medication. As physical therapists, we strive to provide effective education about alternatives to this mounting problem. In “#ChoosePT: Electrotherapy, Effective Alternative for Opioid Reduction?” on February 23, Kelly Contreras, PT, and Seema Gurnani, PT, DPT, described transcutaneous electrical nerve stimulation (TENS) as an alternative for pain management. The session was hosted by the Academy of Clinical Electrophysiology and Wound Management.

Contreras defined the nerve fibers involved in the pain pathway. A-beta fibers are large, myelinated, and fast conducting; have a low stimulating threshold; and respond to light touch. A-delta fibers are small, lightly myelinated, and slow conducting; respond to heat, pressure, cooling, and chemicals; and are involved in acute pain. C fibers are small, unmyelinated, and very slow conducting; and are involved in chronic pain.

“Endogenous opioids are peptides that naturally occur in the body to help modulate the pain experience,” Contreras said. “Evidence supports the use of biophysical agents as part of a complete and effective alternative, or at least adjunct, to opioid prescription.” TENS, she said, serves as “electroanalgesia,” which relieves symptomatic pain by activating natural physiological mechanisms without the side effects.

Contreras said that high-frequency TENS produces analgesia by activating endogenous inhibitory mechanisms in the central nervous system involving opioid, gamma-aminobutyric acid, and muscarinic receptors.

Gurnani described 4 key elements for efficacy: waveform frequency (Hz), electrode placement, intensity, and frequency of application. “With low frequency [1-10 Hz], A-delta fibers are activated, and endogenous opioids are released [endorphins and endomorphins],” she said. “Using high frequency [50-150 Hz], A-delta fibers are activated, and endogenous opioids are released [dynorphins]. Modulation between low and high frequencies provides collective mechanisms for pain relief.”

“Intensity of TENS is crucial to obtain analgesic response,” continued Gurnani. “TENS delivered at a strong but comfortable intensity provides significant analgesic effect.”

“The frequency of application may vary according to chronicity of pain,” said Gurnani. “More frequent applications [such as daily] are needed for acute conditions, and less frequent applications [twice weekly] are needed for chronic conditions.”