ABPTS Speaker Lets Specialists Describe What Makes a Certified Specialist

By Don Tepper

The topic of the speaker’s address at the ABPTS Opening Ceremony at CSM was “What Makes a Certified Specialist?” However, borrowing a page from movie producer Ron Howard, speaker Mark Weber, PT, PhD, SCS, ATC, let the specialists themselves do much of the talking.

First, however, Weber explained, “From years of collecting data, ABPTS knows that intrinsic factors are the predominant motivators for those seeking specialist certification. Your ‘class’ of specialists was no exception, as the top 5 reasons to pursue specialist certification were personal challenge or achievement, professional career goal, proof of expertise, a credential that reflects advanced practice to patients, and a credential that reflects advanced practice to referral sources.”

Weber added, “We also know from the literature that expert physical therapists differ in their clinical reasoning strategies, their expanded use of reflective practice, the emphasis on patient empowerment and education, as well as how they individualize care.”

For that reason, he explained, the most value could be derived from the topic by allowing the specialists themselves to answer the question. Weber admitted he borrowed the idea from Ron Howard’s “Project Imagin8ion.” People were asked to submit photographs that then formed the framework for a movie plot that Howard produced.

Weber continued, “After all, if Opie could do it, certainly we could, too. A call was put out to specialists to answer the question.

Don’t Miss!

✓ Wake up with the Foundation for Physical Therapy Coffee Tasting, co-hosted by the Home Health Section. Tickets are $15 ($5 for students), and the event runs 6:30 am-8:30 am, Hilton Bayfront Indigo West Foyer.
✓ Having the blues is a good thing when you contribute to PT-PAC’s efforts to support those who support physical therapy. Join PT-PAC at the House of Blues tonight, 9 pm-midnight. You can still buy tickets at the PT-PAC booth in the Exhibit Hall.
✓ Hear how Elizabeth Mostrom, PT, PhD, recommends using the power of narrative in physical therapy education at the Pauline Cerasoli Lecture, 3 pm-5 pm, CC Room 14AB.
✓ Student and alumni receptions happen on Tuesday and Wednesday evenings. Check your CSM program guide under Additional Activities, or the CSM mobile app for a list of receptions and their times and locations.

Linda Crane Lecture Inspires PTs to Embrace Teamwork

By Deb Nerud Vernon BS, MA, EMT-P

Sandra Cassady, PT, PhD, FAACVPR, Saint Ambrose University, presented the 14th annual Linda Crane Lecture yesterday. “I had the honor of knowing Dr Linda Crane,” said Cassady. “When I met Linda, I was working on my PhD. I remember how exciting it was to talk to someone so passionate about the cardiopulmonary field—her kindness certainly made an impact on me.”

Linda Crane, who was very active in the CSM community, said Cassady, “Linda was a true believer in the power of team. I was inspired by how she inspired others.”

CSM participants head to the convention center for the upcoming session block.

Sandra Cassady, PT, PhD, FAACVPR
Gait Patterns Can Change, Experts Say

By Deb Nerud Vernon, BS, MA, EMT-P

Gaits come in a variety of shapes and sizes, but can you really change someone’s gait pattern? This was the question posed by Irene Davis, PT, PhD, FAPTA, FACSM, FASB, Harvard Medical School, as she opened Tuesday’s educational session, “Gait Retraining: Taking the Next Step Forward in Rehabilitation.”

“Gait pattern is no longer thought to be rigid, but modifiable,” said Davis. “We want to alter gait in order to improve performance and efficiency, and to reduce injury.”

Davis said that 3 elements are considered when looking at the prospect for injury: structure, mechanics, and dosage. “Research shows that strengthening alone is not enough. We need to alter movement patterns, which, as PTs, we do every day of our clinical lives.”

“The literature shows that internalization of a motor skill is facilitated by acquisition and transfer phases,” said Davis. “The transfer period occurs when feedback is reduced and the individual comes to rely on internal understanding.”

Davis went on to say that we know that learning has occurred when a particular change has transferred to another skill. “To test for learning, add a distraction; for instance a TV monitor. Then see if they are able to maintain the new pattern, or ask them to try to reproduce their old pattern,” suggested Davis. “The human body is incredibly adaptable. You can be as creative as you want to alter gait patterns.”

Brian Noehren, PT, PhD, Department of Physical Therapy, University of Kentucky, told the audience that it is possible to train runners to alter how they run. Citing an injury rate of 50%-75% among runners, he said that the most common injuries are patellofemoral pain (PFP), iliotibial band syndrome, and tibial stress fracture.

Noehren studied 10 subjects who presented with knee pain for a minimum of 2 months, had pain greater than 4 out of 10, had running-related retro patellar pain, and had a positive video screen. He excluded subjects with patella tendinitis, previous surgeries, and pain at other LE joints.

“Initial attempts to gait retrain must be very focused and controlled with runners,” said Noehren. “We used visual feedback by teaching them to adjust their gait to match a graph on an instrumented treadmill with markers on the involved leg.” Subjects were not allowed to run outside of the gait retraining sessions.

“The results of this study show that mechanics were changed, and hip internal rotation was reduced by 25%. Contralateral pelvic drop also showed improvement, which may allow the patella to translate medially and would decrease lateral loading. Pain was reduced after training and also at a 1-month follow-up, and function was improved significantly,” said Noehren. “This was very encouraging considering the chronic nature of the subjects’ symptoms.”

Noehren suggested starting initially with continuous feedback and keeping verbal cues simple and few. “To test for learning, add a distraction; for instance a TV monitor. Then see if they are able to maintain the new pattern, or ask them to try to reproduce their old pattern. The human body is incredibly adaptable. You can be as creative as you want to alter gait patterns.”

“Go to www.apta.org/CSM to learn more!”
1st Annual Orthopaedic Section Meeting
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We are excited to present our first annual meeting for the master clinician! Plan to attend this hands-on advanced continuing education event and be a part of an exceptional meeting, as well as have opportunities to socialize and network with your colleagues. This 2-day meeting will provide the physical therapist attendee an opportunity to attend general session lectures and hands-on breakout sessions related to physical therapist examination and treatment of the lumbar sacral spine and lower extremity. Attendees will have the ability to choose between multiple small-group breakout sessions during both days of this conference.

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Education to Blend Online and In-person Content in a “Flipped” Environment

By Don Tepper

The educational experience in the 21st century won’t just be a blended learning environment in which both a physical classroom and online education play a role. Rather, it also will incorporate a “flipped” classroom model in which activities previously presented in the classroom will be taught online—and activities previously conducted online will be the focus of classroom time. That was the prediction made by Timothy Flynn, PT, PhD, and Robert Wainner, PT, PhD, during the January 22 standing-room-only session on “Turning the Traditional Classroom into a 21st Century Environment.”

The session defined 6 distinct blended learning models, which vary based on teacher roles, physical space, delivery methods, and scheduling. They range from a face-to-face driver in which an in-person instructor delivers most of the curriculum to an online driver in which students work remotely, with either optional or mandatory face-to-face check-ins. Other models include online labs, rotation between online and classroom activities, and self-blended programs in which students choose to take online courses to supplement their school’s traditional curriculum.

The flipped classroom incorporates both online and in-person education. However, it delivers instruction online outside of class while moving “homework” into the class. An article excerpted in their CSM presentation explained, “In regular classrooms the teacher stands at the front of the room and explains, the kids listen and absorb. Then they go home and do homework—the problem sets, the paper-writing, etc. In a flipped classroom, the situation is reversed. First, the learners absorb the lecture at home, often via a video. Classroom time is devoted to doing the homework—grappling with the material, solving problems. Instead of being a sage on the stage, the teacher is a guide on the side, roving like a personal coach, spotting problems, and giving individualized attention and guidance.”

Flynn noted that the educational experience “is sticky when it’s personal.” For that reason, online discussions—in which students respond individually to the postings of other students and to questions posed by the instructor—can be more valuable than an instructor lecturing in person to an entire class.

Flynn asserted that a move to at least a blended environment not only is desirable, but also is necessary: “We’re in a time of change. We didn’t see the technology bubble. We didn’t see the financial bubble. We didn’t see the housing bubble. We didn’t see the education bubble. And now we’re not seeing the educational bubble.”

Wainner discussed some of the findings from a paper “Flipping...”

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in the national association, engaged in clinical practice that was primarily concerned with pediatric cardiovascular and pulmonary issues. She wrote her dissertation on pulmonary function in women who were osteoporotic and taught as well.

Cassady began her lecture, “From Silos to Bridges: Preparing Effective Teams for a Better Delivery System,” by saying that she has had the opportunity to work with some great teams and has always been interested in why some teams seem to function better than others.

“Personnel decisions are some of the most important you will ever make,” said Cassady. “Teamwork is becoming more and more essential to healthcare. In 2014 many previously uninsured Americans will challenge the current healthcare system.”

Citing the book, Five Dysfunctions of a Team by Patrick Lencioni, Cassady pointed out the traits of a dysfunctional team:

• Absence of Trust. Failure on the part of team members to understand and open up to one another.
• Inattention to Results. The tendency of team members to seek out individual attention.
• Fear of Conflict. Artificial harmony, not working through the issues, and holding back concerns.
• Lack of Commitment. Failure to buy into decisions evident by ambiguity.
• Avoidance of Accountability. Once a decision has been made, follow-through does not occur.

“Team members must learn to build trust by sharing experiences over time,” said Cassady. “The team leader must be willing to be vulnerable and show a personal side. Leaders must restrain themselves from stopping healthy conflict. Deadlines for making important decisions must be set.”

Cassady went on to say that avoidance of accountability could be addressed by publishing goals, holding regular reviews, giving team awards, and holding peers accountable. “When the goals and standards are clear, it is easier for members to hold each other accountable. With buy-in, members are unlikely to let the team fall when one member is not pulling his or her weight.”

She said that inattention to results is the ultimate dysfunction of a team. “Goals need to be important to the whole organization. In healthcare, these often relate to safety.”

“Effective teamwork comes down to practicing a small set of principles over a period of time. Many teams succeed because team members want to have positive outcomes,” concluded Cassady.

Dianne V. Jewell, PT, DPT, PhD, CCS, was announced as the recipient of the 2014 Linda Crane award.

The Linda Crane Lecture drew a full and attentive audience.

Fulbright Programs Offer International Opportunities for PTs

Would you like to work or do research abroad? During the Tuesday afternoon session “Global Opportunities in Physical Therapy Education,” a group of Fulbright scholars and specialists discussed how their programs can help you expand your world.

The Fulbright Scholar Program, established by Sen William Fulbright in 1946, sends US academics and professionals overseas and brings scholars and professionals from other countries to the United States. More than 1,100 Americans are named Fulbright Scholars each year, visiting over 125 countries.

Physical therapists or academics who have a PhD or an equivalent professional degree can apply for teaching or research Fulbright Scholar grants, which last 2 to 12 months and include a stipend and living and travel expenses.

Competition can be fierce, so the session presenters offered tips on how to submit a successful application, including obtaining 3 strong reference letters: 1 from a supervisor, 1 from someone who doesn’t work at your institution, and 1 from a colleague.

If you’d prefer to be away from home for a shorter time, the Fulbright Specialist program allows you to collaborate with professionals and academics in other countries through 2- to 6-week consulting or teaching opportunities.

Fulbright Specialists apply for the program and are added to a roster of specialists in their field, who are then chosen by foreign academic institutions for projects they’ve developed.

If you don’t want to leave home at all, you and your academic institution can still benefit from international knowledge via the Fulbright Visiting Scholar and Scholar-in-Residence programs, which bring international teachers and researchers to US campuses.

For more information on Fulbright opportunities, the presenters recommended visiting www.iie.org/cies.

Go to www.apta.org/CSM to learn more!
Reducing “Oxygen Debt” for Patients With Chronic Fatigue Syndrome

By Lois Douthitt

As with a credit card, patients with chronic fatigue syndrome, also known as myalgic encephalomyelitis (CFS/ME), accumulate “oxygen debt” during exercise and activities of daily living (ADLs). In the Tuesday morning session “Best Practices Update for CFS/ME: The IACFS/ME Primer for Clinical Practitioners,” Todd Davenport, PT, DPT, OCS, described “oxygen debt” as the difference between oxygen required for the activity and the amount of oxygen supplied and used.

Continuing the analogy, Davenport said that if an athlete’s oxygen “credit card” has a 5% interest rate and a sedentary person’s a 10% rate, then someone with CFS/ME has a 50% interest rate by comparison. The currency for paying back the debt, he added, is rest.

Davenport is on the writing committee of the 2012 ME/CFS:A Primer for Clinicians, published by the International Association for Chronic Fatigue Syndrome/Myalgic Encephalomyelitis (IACFS/ME). Joining Davenport in outlining the primer were session speakers Daniel Peter- son, MD, Staci R. Stevens, MA, and Kenneth J. Friedman, PhD.

CFS/ME is characterized by post-exertional malaise (PEM)—exacerbation of symptoms following minimal physical or mental activity. Those symptoms include debilitating fatigue, pain, sleep dysfunction, cognitive problems, breathing problems, headaches, light-headedness, muscle pain, and nausea, and recovery time after exertion can be hours, days, or even weeks. CFS/ME affects all ages, races, and socioeconomic groups, although 70% of sufferers are women, according to the primer. There is no known cause and no known cure, and medical treatment therapies target 1 or more of the symptoms, such as drugs to improve sleep or relieve pain.

The speakers discussed graded exercise as a possible activity-based intervention to help patients recover and maintain optimal function with ADLs. Therapy should focus on increasing capacity through activity modification education, balancing rehabilitation with the patient’s quality of life, and training the short-term energy system. Specific energy-saving tips for patients included simplifying clothing and makeup choices, showering seated, making the bed while still in it, and packing groceries smarter.
Fraud and Abuse—And How to Avoid It—Addressed at CSM

By Don Tepper

A panel of 2 physical therapists and a lawyer presented a comprehensive overview of fraud and abuse in physical therapy—and how to prevent it—in a session on January 22. In “The Case for Preventing Fraud and Abuse in Physical Therapy,” Gayle Lee, JD, Stephen Levine, PT, PhD, MSHA, and Becky Clearwater, PT, DPT, MS, discussed the federal government’s efforts for reducing fraud and abuse in health care. They then presented recommendations for PTs to develop strategies in their own practices for complying with federal and state rules and regulations in order to minimize the risk of audits. Finally, they described the steps to take if a PT recognizes fraudulent or improper practices.

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Learning to Assess Hand Function After Stroke

By Deb Nerud Vernon, BS, MA, EMT-P

The 2 most common motor impairments seen after stroke are paresis and loss of fractionated movement, said Catherine E. Lang PT, PhD, Washington University School of Medicine, St Louis, at Tuesday’s educational session “Assessment of Upper Extremity Impairment, Function, and Activity Following Stroke: Foundations for Clinical Decision Making.”

Lang told attendees that paresis is a decreased ability to volitionally activate motor units and is caused by damage to the corticospinal (CS) system. Loss of fractionated movement is the ability to voluntarily move one segment independently of other segments. Other common upper extremity (UE) impairments after stroke include abnormal muscle tone and/or changes in somatosensation. “The corticospinal system is a key neural substrate for skilled UE movement,” said Lang.

After stroke, there is a cascade of motor deficits, which ultimately lead to the decreased ability to grasp and to make other movements, Lang said. “The relative loss of ROM from proximal to distal is distributed evenly across the limb. Likewise, strength follows the same proximal to distal gradient.” She added that muscle strength can be preserved when electrically stimulated and that the extent of the CS system damage determines the severity of paresis.

“My favorite test for paresis is the Motricity Index,” said Lang. “For one reason, it’s quick.” She said that this is a manual muscle test performed at 3 key segments; shoulder abduction, elbow flexion, and pinch grip. Lang said, “Stroke damages the ascending pathways of somatosensory cortical areas, which sit right next to the motor areas, and vascular supply is the same for many motor and somatosensory structures. It’s typically not modality specific. If you lose light touch sensitivity, you probably lose temperature sensitivity also. The beauty of that is that you do not have to evaluate everything, you can make assumptions.”

Lang also told the audience that there are numerous reliable measures readily available to clinicians for the evaluation of UE function poststroke. The most frequently cited UE performance measures include the Action Research Arm Test, Box and Blocks Test, Chedoke Arm and Hand Activity Inventory, Jezben-Taylor Hand Function Test, Nine-Hole Peg Test, and Wolf Motor Function Test. The most frequently cited self-report measures include the Stroke Impact Scale and the Motor Activity Log. When deciding which test to use, the PT should ask:

Is the necessary equipment available? Is specific training needed prior to administration? How much time does it take to administer?

Go to www.apta.org/CSM to learn more!
How is ProtoKinetics the Game Changer?

Do you know the names: ProtoKinetics, PKMAS, or Zeno? If not, you may recognize their predecessor; the GAITRite M_Sqr Gait Analysis System. Michael Rowling and Youan Chang, former management employees of CIR Systems Inc., acquired the GAITRite M_Sqr technology from CIR Systems and have set out to advance the technology to meet the industry’s research and clinical needs using the new PKMAS software and Zeno walkway.

ProtoKinetics aims to provide the tools that will become standard in the medical community for human performance evaluations. The user-friendly PKMAS software offers many unique features in addition to standard gait measurements: velocity, cadence, step length, instantaneous Center of Pressure (COP), step time, toe-in/out angle, etc. For instance, the program adds an essential feature to gait assessment, the Center of Mass estimated (COMe), to quantify the body as a whole and compare how its changes are reflected in the Center of Pressure measures. The [COP-COMe] distance measurement provides an interesting insight into the movement of the body as it relates to foot pressure and truly differentiates abnormal gait patterns from normal walking. The software also incorporates the Left/Right Ratio into its statistical output measures. This value adds further meaning to the gait cycle as it reveals the overall symmetry of a subject’s gait measures. Alongside the addition of analysis parameters, the PKMAS software also supports a larger array of patient trials. Using the PKMAS software with the Zeno or a GAITRite walkway, customers will be able to start a trial while the patient is standing on the mat. This is imperative to gait initiation and standing studies. Furthermore, the new software permits users to run multi-pass trials or tests including a turn. These are just a few of the new features that will advance your traditional protocol!

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Bioness F.A.S.T.E.S.T. Clinical Trial Nears Completion

Data collection has begun for the Bioness F.A.S.T.E.S.T. clinical trial. Beginning in May of 2010, 11 clinical sites across the country enrolled 197 post-stroke subjects with foot drop in this 42 week blinded randomized clinical trial design to compare the Bioness L300 Foot Drop System to use of the ankle-foot orthosis (AFO). This controlled trial, which includes physical therapy intervention, will provide the largest results to date examining the use of functional electrical stimulation (FES) for the treatment of foot drop in persons with stroke. A methodology paper detailing the rigorous trial design and baseline data has been accepted for publication in the Journal of Clinical Trials. The first of several outcomes manuscripts is currently being drafted with the goal of publication early this year. Combining the potential outcomes of this trial with the existing evidence base and subsequent clinical practice guidelines supporting the use of FES in persons with stroke may increase accessibility to FES technology as a covered benefit. Please stop by the Bioness booth, #2003, for more information.

Also stop by the Bioness booth #2003 this week during exhibit hall hours and receive a personal tour of the Vector Gait and Safety System. At Bioness we are committed to helping people regain mobility and independence through clinically proven products. In addition to the Vector Gait and Safety System, Bioness manufactures solution-driven technologies including the award-winning L300 Foot Drop System, the H200 Wireless Hand Rehabilitation System, and the L300 Plus System. These advanced-technology functional electrical stimulation (FES) systems are designed to provide functional and therapeutic benefits for individuals affected by central nervous system injuries and disorders such as stroke, multiple sclerosis, traumatic brain injury, spinal cord injury and others.
Fraud

> from page 8

- Signatures not legible (physician on plan of care or the PT)
- Using a stamped signature

The program similarly identified risk areas for PTs in post-acute settings, including home health, skilled nursing facilities, and inpatient rehabilitation facilities.

Lee offered myriad tips on how PTs can protect themselves. Among them:
- Be familiar with Medicare coverage criteria
- Conduct periodic self audits
- Have at least 1 dedicated compliance officer
- Implement a team approach, making sure all personnel have a vested interest in ensuring compliance
- Capitalize on continuing education opportunities

Levine presented a number of case studies of physical therapy practices that have been audited. He noted, “Most PTs feel that this threat does not apply to them, because they’re not intentionally committing fraud and abuse. It’s just that PTs generally aren’t well educated on those issues. Most PTs who commit fraud and abuse are not bad people. Our goal is to make every PT educated.”

He noted that although there are numerous triggers that may prompt an audit, one particularly common trigger is disgruntled employees.

In the case studies Levine presented, outcomes ranged from no penalties or required paybacks from the practice to a pending case in which the PT faces a maximum of 5 years in prison and a $250,000 fine. He advised session attendees to educate clinical and administrative staff on applicable laws and regulations. He urged them to continue to monitor enforcement trends, and to have a process in place to make changes when appropriate.

Knowledge

> from page 4

Texas State University’s Entry-level Physical Therapist Musculoskeletal Curriculum and Implementation of a Hybrid Learning Model.” From 2009 to 2012, the percent of lectures recorded rose from 20% to 100%. Subject matter experts were added to the recorded lectures in 2012, which Wainner reported added greatly to their value to students. One other productive change: During the 4-year period, the average length of a recorded lecture was reduced from 50 minutes to 25 minutes.

Student evaluations of the shift to a flipped curriculum were highly positive. Meanwhile, academic outcomes remained relatively unchanged. He said the benefits include customized learning to the specific needs of the individual, immediate feedback, and a constructive learning environment. It also motivated students to perform beyond externally imposed requirements, he said.

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