

# GERINOTES

SECTION ON GERIATRICS, AMERICAN PHYSICAL THERAPY ASSOCIATION

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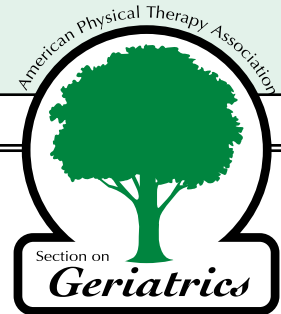
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Contact *GeriNotes* Editor, Carol Schunk, PT, PsyD  
[carolschunk@earthlink.net](mailto:carolschunk@earthlink.net)



# PRESIDENT'S PERSPECTIVE: CONTINUING CRITICAL COLLABORATIONS

John O. Barr, PT, PhD



In advancing our mission which includes advocacy, the Section on Geriatrics has a proud history of collaborating with groups and organizations external to the physical therapy profession. These collaborations have included: representation at the White House Conferences on Aging (beginning in 1981) and the Governors' Conference on Aging (1985); participation in the 1<sup>st</sup> National Leadership Conference on Physical Activity & Women's Health (1997). In more recent years, we've established and maintained liaisons with the American Diabetes Association, Falls Free, the International Council on Active Aging, the Long-term Care Functional Profile, and the National Blueprint on Aging. Most recently, we've begun partnering with the APTA in collaborating with the Eldercare Workforce Alliance (EWA).

The EWA is direct outcome of the Institute of Medicine's report *Retooling for an Aging America: Building the Health Care Workforce*,<sup>1</sup> (the subject of "President's Perspectives" published in July and September of 2008). It is a board-based coalition of 29 national organizations, including the AARP, American Geriatrics Society, American Nurses Association, Family Caregiver Alliance, National Council on Aging, and the Visiting Nurses Association. Ultimately, the EWA represents health care professionals, the direct care workforce, family caregivers, and consumers. Its mission is to address our nation's worsening eldercare crisis, building a caring and competent eldercare workforce, joining in partnership with older adults, their families and other unpaid caregivers to provide high-quality, culturally sensitive, person-directed, family-focused care, and improve the quality of life for older adults and their families. Further

details about the EWA can be found at [www.eldercareworkforce.org](http://www.eldercareworkforce.org).

Since its inception in early 2009, the APTA has been recognized as the "national" member organization representing the physical therapy profession. However, based on availability, either APTA staff members Marc Goldstein, PhD or Nate Thomas, PT, DPT, or our Retooling Taskforce Chair, Rita Wong, PT, EdD have attended periodic EWA meetings. Additional legislative input has been provided by Ellen Strunk, PT, MS, GCS, Co-chair of our Reimbursement & Legislation Committee.

On September 14-15, Rita Wong, PT, EdD, Carrie Sussman, PT, DPT, and I participated in EWA's Advocacy Day on Capitol Hill, along with 70 other representatives from members organizations. In reality, physical therapy was one of the most strongly represented professions, with links to key Congressmen in Virginia, California, and Iowa during our visits.



Rita Wong, PT, EdD, John Barr, PT, PhD, and Carrie Sussman, PT, DPT, at the US Capitol complex.

As might have been anticipated on the second day that Congress was back in session, we met almost exclusively with congressional staff members.

Fortunately, we universally found staff to be receptive to the information we shared as we sought support for retaining provisions in the Senate HELP Committee *Affordable Health Choices Act* and the House Tri-Committee *America's Affordable Health Choices Act of 2009* (H.R. 3200). The Senate HELP committee:

- Supports health professionals, in-

cluding physical therapists, specializing in geriatrics and gerontology (via the Geriatrics Health Profession Education & Training Programs under Titles VII & VIII of the Public Health Service Act).

- Supports direct care workers through training and workforce development.
- Supports older adults remaining in their homes by including the *Community Living Assistance Services and Supports (CLASS) Act* provisions.

The House Tri-Committee is seeking to establish a Workforce Advisory Panel that would better support personal care attendants. Additionally, we urged support for the *Caring for an Aging America Act of 2009* (S. 750) to provide loan forgiveness for professionals training in geriatrics and gerontological specialties, and for California Senator Boxer's amendment that includes physical therapists.

Such collaborations with other organizations don't always focus on issues that directly impact the profession of physical therapy, but certainly they can benefit the patients and their families that we serve. Importantly, these types of collaborations are critical to having the physical therapy profession at the table, engaged with other professions and disciplines in a national-level discussion about health care, and being recognized for the contributions that we can make.

## REFERENCE

*Retooling for an Aging America: Building the Health Care Workforce*. National Academies Press, 500 Fifth Street, NW, Lockbox 285, Washington, DC, 20055; (800-624-6242). Available at: <http://www.nap.edu/catalog/12089.html>. Accessed on September 27, 2009.

*Dr. Barr is a Professor in the Physical Therapy Department at St. Ambrose University, Davenport, IA. He also serves on the Editorial Board for the Journal of Geriatric Physical Therapy.*

## EDITOR'S MESSAGE: CONTINUUM OF CARE IN THE CLINIC AND GERINOTES

Carol Schunk, PT, PsyD



I recently had the experience of working in a different environment. Not totally new but something I have not done on a regular basis for several years. As a traveler for a local therapy placement company, I did coverage work for several weeks in a skilled nursing facility (SNF). This was different than home health which has been my clinical setting for the past 8 years. Working in a more acute atmosphere I was very aware of the concept of a continuum of care for the older person. I brought my skills as a home health therapist and incorporated them into the inpatient rehab setting. This is not unique as all therapists consider discharge planning and the return to home for inpatients but I found myself immediately questioning the patients about the place they were anticipating living after discharge. Do you

have stairs? Who will be there with you? What impressed me is that as therapists we have this positive energy and skill set that covers the spectrum of care with an orientation for optimal health. On the topic of optimal health and quality of life, in this issue Helen Cornely has written the second part of her personal experience with cancer, this one focused on intervention. Helen's husband was diagnosed with cancer and Helen provides wonderful insight in being on the other side of the hospital bed. As a therapist, she provides the reader with advice on lessons learned that can translate into positive interventions for our patients.

The content of the articles in this issue are varied and reminded me of a sort of continuum of care for information. We usually do not publish articles that are reprinted from another source; but in this issue, there are several that came our way and were too important to not pass along. In this age of growing diversity, the Cultural Guide from South Miami Hospital is a very concise guide

to 20 different cultures in relation to the provision of health care. The article "Are You Sleeping" was published in the APTA Private Practice Section publication and is oriented toward outpatient services but the focus is the therapist as the exercise expert. The author's intent is to empower therapists to be the "profession of choice to assist in improvement and maintaining the health of the communities." This is so applicable to our Section members and follows the round table discussion in the September issue on Optimal Health. The final reprint article is on the topic of ethics and accountability. Thanks to Mary-Ann Wharton, an active SOG member, for allowing us to reprint it in *GeriNotes*.

Following this message is a Letter to the Editor in response to an article in our September continuing education issue. I thank Peter for taking the time to write and allowing his comments to be published. The Editorial Board of *GeriNotes* welcomes input and comments, positive and constructive, from our readers in any format at any time.

## LETTER TO THE EDITOR

Dear Editor,

In her recent article "Hip and Knee Joint Arthroplasty Updates: What Are the Surgeon's Choices" (Vol 16, No. 4), Mary Langhenry provides an excellent historical and current-status review of the entire field of hip and knee arthroplasty, which—as she points out—is becoming more complex every day. I am writing with a comment and question for the author, as I believe this issue may be of interest to other *GeriNotes* readers.

I recently attended a very interesting 2-hour lecture by a prominent and well-published Chicago orthopaedic surgeon who specializes in a variety of knee arthroplasty procedures. He expressed the following point of view: He stated he is concerned about the increasing frequency of TKA procedures before 60 yrs of

age because of the difficulties involved in knee revisions (i.e., the destructive and thus risky nature of the procedure), and the increasing life expectancy of these patients. Compounding his concern is his belief that fewer and fewer orthopaedic surgeons are doing knee revision procedures, precisely because of the significant challenges and risks. Of course if that trend would persist, it could potentially leave recipients of early-age TKAs "up a creek without a paddle" later in life! He implied that the reluctance of surgeons to do knee revisions is a recent trend. I found his opinion fascinating and controversial but I have no way of evaluating it or the premises on which it is based. Ms. Langhenry's article did not really address the issues around the earlier and earlier total joint procedures or the related issue of the destructive challenges

of knee revisions, but it is obviously related to her central theme. I would be interested in any comment the author may have on this subject, since, as she stated, we can expect to see an explosion of such procedures among the emerging baby boomer population! Thank you for your consideration, and many thanks for your efforts in making *GeriNotes* such an excellent publication and contribution to our profession.

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Peter J. McMenamin, PT, MS, OCS  
President and Clinical Director, Physical Therapy Chicago, Ltd. President, Illinois Physical Therapy Association (IPTA)

Editor's Note: Author, Mary Langhenry will respond to Peter's comments in the January issue of *GeriNotes*.

# PUSHER SYNDROME IN A PERSON WITH CVA: CASE REPORT

Toni Patt, PT

The chance of having a stroke increases with age and the results can be devastating. It can result in loss of independence, inability to continue living alone, inability to care for oneself, and a decreased quality of life. Older stroke patients have the added danger of prolonged immobility which is associated with longer lengths of stay and poor outcomes. Each day an older adult remains in bed is one more day of becoming weaker further delaying a return to home. Older adults have longer recoveries than younger victims. Health reserves are less. Comorbidities complicate medical treatment and can worsen as the delicate balance between health and illness is destroyed. Age-related changing in hearing and vision can impair the rehabilitation process. Therapy must be started as soon as possible. These patients must be up and moving around. Ample research exists supporting early mobilization and improvement with mobility, fewer complications, and shorter lengths of stay. Aerobic endurance and VO2 max are less. Reaction times are less. The presence of arthritis can make walking and standing painful. The result is poor therapy tolerance, inability to compensate for the paretic side, and quick fatigue.

Stroke patients who present as pushers are a unique challenge. These patients have the usual losses associated with stroke as well as active resistance to movement. Instead of attempting to assist or remaining passive these patients push against attempts to move them. The change of prolonged immobility is much greater for a pusher. Sometimes a mechanical device is used to transfer them which significantly lowers any therapeutic benefit from the transfer. Being passively positioned in a chair isn't enough compensation for pushing. Therapy is needed to work on inhibition of pushing to enable mobility training to begin. Because pushing is associated with longer lengths of stays, therapy intervention must happen quickly.

## PUSHING

It's been estimated 10% of all patients referred for therapy will be pushers.<sup>1,2</sup> Pusher syndrome, also called contraversive pushing and lateropulsion<sup>3</sup> is characterized by spontaneous body posture of leaning toward the paretic side, active pushing with the nonparetic limb toward the paretic side, and resistance to passive correct of body posture.<sup>2,4</sup> If not corrected, a pusher will orient his body at an 18° angle toward the side of lesion.<sup>4</sup> Pusher syndrome is associated with visual neglect, hemiparesis, and aphasia. Pushers have no impairments in either visual or vestibular systems and may be aware of loss of balance but unable to correct it.<sup>4</sup> Pushing has been linked to lesions in the posterior thalamus and either right or left sided with right sided lesions more common.<sup>2,4</sup> Spontaneous symptom recession usually occurs by 6 months.<sup>1,5</sup> The focus of treatment is to eliminate the pushing and then begin functional mobility training.<sup>1</sup>

## REVIEW OF LITERATURE

A review of the literature found a minimal number of references addressing the treatment of pushing. The available evidence recommends addressing body awareness to create symmetry of posture.<sup>6</sup> This can be achieved through verticality training in which the patient is instructed to use visual feedback to align his or her body with the vertical axis.<sup>7</sup> Visual exploration of surroundings should be encouraged and visual aids such as the therapist's arm or a mirror can be provided.<sup>3,8</sup> Such training should be limited to the frontal plane until positional awareness is achieved.<sup>7</sup> Once the patient is able to align the body with the vertical axis, therapy can be progressed to reaching for objects on the nonparetic side<sup>3,8</sup> and strengthening of proximal postural muscles.<sup>7</sup>

## CASE REPORT

### Patient Information

Mrs. K was a pleasant 66 y/o female admitted to the stroke unit with an

acute right MCA infarct and left hemiplegia. She wasn't a tPA candidate due to an intercranial hemorrhage 7 years prior. She underwent a Merci procedure for embolus removal which was unsuccessful. Her past medical history included HTN, mitral valve prolapse, depression, anxiety, and a previous traumatic brain injury with skull fracture and ICH. Her TEE identified minor left ventricle dysfunction. She was started on Coumadin. Serial CTs taken throughout her hospitalization showed the area of ischemia to be stable. Prior to her hospitalization she was in good health, independent with activities of daily living (ADLs) and IADLs. She lived with her significant other in a single story home with no steps to enter. Mrs. K didn't exercise outside her normal daily activities. She didn't smoke but occasionally drank alcohol. Her goal for therapy was to return home. She was seen for the first time in the stroke unit and was followed through inpatient rehabilitation.

Upon initial examination Mrs. K presented as alert and oriented to person and place. She followed 1 step commands with 50% accuracy on the right. She had an obvious right gaze preference and severe left neglect. Range of motion and strength of the right were WFL. Passive range of motion on the left was WFL. No left sided motor return was noted. Proprioception, light touch, and pressure sensation were absent on the left but intact on the right. Both the arm and leg were flaccid. Her mobility was impaired by pushing to the left. Bed mobility required max assist of one person. She was dependent to transfer to the chair. She displayed pusher syndrome to the left as soon as she was transferred to sitting. With her right hand in her lap, sitting balance was poor. Trunk control was poor. She was unable to sit in neutral posture without max assist.

### Plan Of Care/Treatment

The plan of care (POC) was designed with the goals of abolishment of pushing,



improved balance and motor control, and independence in using compensatory techniques for the left neglect. These goals were selected because these were skills necessary for her to return home and were agreeable to Mrs. K. Since she was sedentary prior to admission, compensatory instruction was provided during rest periods to limit the level of exertion and aerobic demand. Initially the plan of care concentrated on verticality training, task specific motor learning, and patient recognition of disturbed posture.<sup>9</sup> Functional mobility was dealt with later in the course of treatment.

Therapy was initiated in sitting for positional awareness training. The number of therapists needed to mobilize her was limited to one as being touched provides additional input. Using multiple therapists increased the chance that she would be unable to process any of the input positive or negative. Sitting is a very functional position and encourages use of the postural muscles. Improvement in posture and sitting balance would increase her independence with self care activities, decrease her need for assist, and prepare her for eventual return home. A mirror was present in front of Mrs. K during all therapy sessions to provide visual feedback of the location of her body in space. Visual, auditory, and tactile feedback of positioning and orientation in space were constantly provided.

Mrs. K was first instructed in aligning her body with vertical structures within the room including windows, the door frame, a weight bearing column, and the therapist's body. Reinforcement was provided as needed during each session concerning her body position. Initially Mrs. K was positioned on an elevated mat table with her left foot supported and her right foot hanging loosely to restrict pushing. A plastic wash basin was placed on her right with instructions to keep either her right hand or elbow on the basin at all times for the same reason. Focusing on the basin decreased some of the triggers to begin pushing. She was frequently positioned in side lying on her right elbow to provide a sense of security in that direction.

Exercises for sitting balance and trunk control were initiated when Mrs. K was able to demonstrate body position awareness. These included pelvic tilts and reaching while sitting in front

of a mirror. To facilitate motor learning multiple repetitions of these exercises were performed. Mrs. K reached to attach blocks to the mirror, reached in reciprocal rotation with arms supported through gradually increasing ROM, and placed both hands on a Swiss ball while pushing the ball forward. All reaching exercises were performed to the right and left. Constant verbal and visual cueing was provided. Manual support for sitting was gradually decreased. After each repetition she returned to midline with assist as needed. Vertical reorientation was performed before the next repetition. As Mrs. K continued to progress, the difficulty of the exercise increased. The exercises progressed to sitting unsupported in front of the mirror while reaching with gradually increasing trunk excursion, batting a balloon with and without support, and moving on to and off of her elbows in all planes. As soon as she demonstrated awareness of midline instruction, compensatory techniques for the left neglect was begun. Wheelchair mobility was introduced by instructing her to focus on an object directly in front of her. Pillows were placed in the chair to facilitate correct body alignment.

After one week, Mrs. K was able to sit erect in midline independently. She then progressed to standing in the parallel bars. The initial exercises were repeated in front of a mirror while standing. The parallel bars were oriented to allow a clear view of the doorway and column with a wall on her right to facilitate left awareness. Moderate assist was provided to block the left knee with care taken to avoid obstruction of the mirror. Family members were enlisted to assist with verticality feedback from all sides. For progression Mrs. K was instructed to stand without UE support. Later arm ROM was added which began as simple reaching and progressed to moderate trunk excursion. Mrs. K was seen twice daily for a total of 90 minutes. On the weekends she was seen for 45 minutes each day.

By the end of therapy, Mrs. K could stand erect with only the support of a wide based quad cane. When not distracted, she could maintain this posture up to 5 minutes. Her OT reported improvement in ADLs sitting at bedside. Transfers had progressed to CGA going to the right. She continued to need cueing to avert right gaze drift. She was able

to propel her wheelchair with SBA. Her family was trained in transfers and safety. Mrs. K was then able to direct her care upon returning home.

## SUMMARY

Being able to recognize pushing is necessary for any physical therapy working in a neuro rehab setting. These patients are challenging because they don't always respond as expected. Older adults are more likely to suffer from the effects of immobility in any situation. The presence of pusher syndrome is likely to contribute to immobility. Anything increasing the chance of immobility must be immediately addressed. The same principles of therapy apply to the pusher as to more conventional stroke presentations. The patient must develop positional awareness and core muscle strength. Strong core muscles are necessary to provide stability for the extremities to be able to move. Once these skills are mastered in sitting, they must learned in standing. The exercises described for Mrs. K demonstrate this.

Mrs. K was agreeable to this plan of care because it addressed her long term goal of going home and not being dependent. Although she hadn't progressed to gait by discharge, she was mobile and safe at wheelchair level. Evidence-based physical therapy requires the patient be agreeable to the recommended interventions. Mrs. K was agreeable because she recognized the benefits of the treatment progression.

Although pushing was identified as early as the 1980s, research relating to it is limited. The majority of existing research focuses more on the causes and clinical presentation than treatment. One problem is the small percentage of stroke patients who have the syndrome. Another problem is the variability of the severity of the pushing. Some patients extinguish the behavior after a few treatments. Other patients take months. Research in reference to treatments is needed to identify which exercises are most effective as well as expand treatment options.

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Toni Patt, PT is currently working on her DPT. She is a member of the Section on Geriatrics and the Neurology Section of the APTA. She works on the stroke unit of a large acute care hospital in Houston, TX.

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## Editors

Jason Hardage, PT, DScPT, GCS, NCS  
Sue Wenker, PT, MS, GCS

## Additional Questions

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# CANCER: THE PERSONAL EXPERIENCE

## SEGMENT TWO—INTERVENTION

*Helen Z. Cornely, PT, EdD*

Cancer—it is a dreaded diagnosis despite all the recent improvements in treatment and cure. This year, about 565,650 Americans are expected to die of cancer, more than 1,500 people a day. Cancer is the second most common cause of death in the US, exceeded only by heart disease. In the United States, cancer accounts for 1 of every 4 deaths.<sup>1</sup>

No one ever thinks cancer will happen to them or to their family. Unfortunately, this is not true. Three out of every 4 American families will have at least one family member diagnosed with cancer. There are more than 10 million people in the United States today who are cancer survivors.<sup>2</sup>

As a physical therapist and professor, I have treated and I have taught students how to treat individuals with cancer diagnosis. I had all the evidence-based practice information on how to best intervene for my patients with cancer. I had all the right words to say. I had coached many students in empathetic responses in working with individuals undergoing the travails of cancer management with chemotherapy, radiation, surgery, and then dealing with the sequelae and rehabilitation following. I had everything (at least I thought I did), but the personal experience.

I am writing the second in a series of 3 articles to share with other therapists my journey as a physical therapist professor who finds herself a caretaker of a person with cancer. It is not about references and resources. It is about reflection on how physical therapy can impact patients with cancer. The first article focused on diagnosis,<sup>3</sup> this the second, will focus on treatment intervention, and the third will contemplate rehabilitation and life after cancer. In this journey, I re-examined my focus as a health professional and gained new perspectives on the health care system. This journey into the forays of cancer is life altering for all involved. As I became immersed in the health care system from the receiving not giving end, I relearned

what qualities are essential in caring for our health. It is this reawakening and perspective I want to share with my fellow therapists. Perhaps many of you have gone through this journey and my words will be affirmation of what you went through. Or perhaps my words will bring new insight into how we approach each individual as they prepare for or have gone through the fight of their lives, the fight to beat cancer. I will share with you my lessons learned.

### THE INTERVENTION

What do I remember from the 47 consecutive radiation treatments and the 3 one week inpatient hospital stays for 24-hour chemotherapy infusion? What I remember is a blur. A blur of trying to manage work schedules, hospitals schedules, doctor appointments, my husband's work schedule attempts, assuring the kids Dad was ok, keeping friends and relatives informed, and somehow trying to maintain some semblance of reality during it all. I remember trying to keep alive in *me* the positive support and energy that my husband needed to survive. Hospital care consumes your life. It eats away at everything else you do. It is carnivorous. It does not care what else is important in your life, once immersed in treatment you are at the mercy of the "system." Hospitals are pretentious. They assume they are the most important and most critical aspect of your existence. They do not value your time or the outside world. The hospital becomes the omnipotent being of all your directives in your life. Lesson learned. Be respectful of your clients/family's time and outside demands. They are real.

Our routine was daily Monday through Friday radiation for 7 weeks with 3 inpatient hospital stays for 24-hour chemotherapy infusion. The physician's mantra was, "We are going to make you very, very sick to make you better." How true this was! I saw my strong, vibrant husband be selectively poisoned with chemotherapy and radiation and slowly succumb to the effects of

the treatment that hopefully would kill the cancer before him.

In this stage, my physical therapy instincts and training came to the forefront. I could make sure he stayed active in the hospital, walking round and round the hospital corridors dragging an IV pole. I could work to ensure his flexibility. I could position him for maximum comfort. I could provide massage for relaxation and pain relief. I could bring pillows and blankets from home. I could set up his computer. I could try and make sure he was well fed. However, within all these tasks, making sure he was well fed became my biggest challenge.

With head and neck cancer, there is often great difficulty with swallowing due to xerostomia (deceased saliva), pain from radiation, and severe mucositis. Interestingly enough, nutrition was not high on the list of priorities for any of the doctors even though with throat cancer, eating is an enormous challenge. At the same time, proper nutrition is critical when the body is under siege from radiation and chemotherapy. I searched out the liquid supplements with the highest protein and calories. I went to the fish store weekly for the yellow snapper filets which were the only solid food besides mashed potatoes and scrambled eggs that he found palatable and able to swallow down. Despite advice and Xeroxed sheets of what foods to eat during radiation, it was still trial and error and lots of experimentation and research before I found the winning combination of cooked spinach, mashed potatoes with Benecalorie<sup>4</sup> and yellow snapper filets. Benecalorie was literally a life saver. Benecalorie is a high calorie and protein supplement formulated to fight significant unintended weight loss. This low-volume liquid contains 330 calories per 1.5 ounce serving and has a neutral flavor that can be added to most any food or beverage. You can add it to just about anything. When swallowing is painfully difficult, everything you ingest

needs to be nutritious and high calorie. I found it on line. I actually brought it to the attention of our radiation nurse to suggest for other patients. She mentioned she had heard about it. I wondered why if she had heard about it was this information not given earlier in our treatment? Why wait until weight loss is happening. Why did we not start adding calories day one of treatment? Lesson learned—constant communication about all aspects of care is critical.

An enormous amount of my energy was spent focusing on my husband's total existence during the intervention. In this stage, it is the little things that people did that made the biggest difference. The difference makers were: the nurses who always wrote their names down, but also always introduced themselves and what they were doing; the police officer who let my daughter up to the ward even though it was past the scheduled time; the friends that stopped by with pasta alfredo because it was my husband's favorite; all the cards and well wishes; my sister who sent me a certificate for a massage—not for my husband but for me; my tennis buddies who took me to lunch and sat with me through the surgery; and my daughter whose sly humor kept her dad laughing and appreciative of her trying to teach him yoga moves bedside. However, the best of all were the valet parking staff who by the second time I parked with them knew our names. They anticipated our schedule and had the car waiting for us on our exit. They made the dreaded trip to the hospital a little less onerous and it was much appreciated. Luckily, I had enough flexibility of work patterns that I was able to continue with my own employment. However, I also relied on the goodwill of many coworkers and my secretarial staff to keep things afloat at work. Lesson learned. Take whatever help offered. Be appreciative of the little things, they make a difference.

When the radiation and chemotherapy finally finished, we celebrated. All that was left was the neck dissection to remove lymph nodes that could possibly harbor future problems. Little did we know the extent of that surgery. Although the surgeon had explained in detail, the surgical techniques, the recovery, and the possible side effects, in reality I don't think either my husband

***Lesson learned –  
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about all aspects of care  
is critical.***

or I were prepared for the extensive recovery phase and the cosmetic changes. So once again, we were immersed in the pretentious hospital system. An early morning surgery was not started until mid day and not finished until late evening. My husband stayed longer than needed in recovery because a bed could not be found. He finally was moved to intensive care because a ward bed was not available. Long story short, we left the next morning both exhausted, not really sure of the instructions, or what to anticipate. Now all the treatments were really over, but he felt worse than ever once again. The journey continues on even though the treatments were finished.

### LESSONS LEARNED

As a physical therapist, although our focus is the patient, we need to remember the family and caregivers. We need to remember that we have totally upset the person's life. They did not choose to have cancer or to need physical therapy or any medical help. They are not there of their own free will. They are there to get back to where they were. We can help by remembering to be flexible and patient with their time and respectful of who they were before, not what they are now. This sounds so basic but at times we need to gain perspective and be reminded of what it is to be immersed in the "system" and to have medical schedules, doctor's appointments, scans, and bloodwork running your life decisions.

The intervention stage is a doing stage. You are actively fighting a disease. You are totally engaged and immersed in taking care of the day to day mechanics and needs of your loved one and if you have time, yourself. This stage is exhausting but you don't feel like you can complain. You are not the one with cancer. You are the supporter not the needy. The blurred activity is what makes this stage doable. The focus is on getting through and then things will improve.

Physical therapists can help just be asking, "How are you doing?" and

meaning it. In this stage, exhaustion and weakness are insidious. We all know that routine and mobility is key. We need to continue to focus on activity and movement. Don't forget about touch. The healing touch of hands can be a massage or a hand on the shoulder for support. Your body changes with chemotherapy, radiation, and cancer. Touching in a high tech environment make you feel acceptable and normal and grounds you as a human.

Physical therapists should fight to see all patients on the chemotherapy wards. I kept my husband walking but the man in the bed next to him did not have that same support. How sad and shameful that we don't provide all with what we know is best practice in a hospital. Exercise can help with nausea, stress, pain, weakness, and depression associated with cancer and chemotherapy, so why is it not prescribed along with all the antianxiety medications? With the focus on evidence-based practice, why are we not following the evidence? I know that many physical therapists are championing for physical therapy to be more involved in every aspect of oncology care, but in practice we are not there yet and we need to continue the push until every individual with a cancer diagnosis is seen by a physical therapist with the same regularity as the oncologist.

The intervention is over. Somehow, there is a feeling that all should be finished and the cancer should disappear. The cruel irony is that although the biological traces of cancer may be gone, the effects of the treatment linger. These lasting effects play havoc on the psyche that questions if the cancer is gone, and questions why don't I feel better. This next phase, or survivorship phase, is the topic of the third and final article in this series. So continue along with me on my journey.....

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Dr. Helen Cornely is Associate Dean in the College of Nursing and Health Sciences at Florida International University (FIU) in Miami, FL. Prior to her promotion to Associate Dean she was Chair of the Department of Physical Therapy and held the rank of Associate Professor. Dr. Cornely received a BS in Physical Therapy from the University of Pennsylvania, a Master's degree in psychology from Nova University, where the focus of her studies was Gerontology and her Doctoral Degree in Adult Education with a Specialty in Gerontology from FIU. She worked as a physical therapist in home health care for over 18 years in Dade and Broward Counties. She has presented her research on fall prevention and health and wellness for the older adult both nationally and internationally.

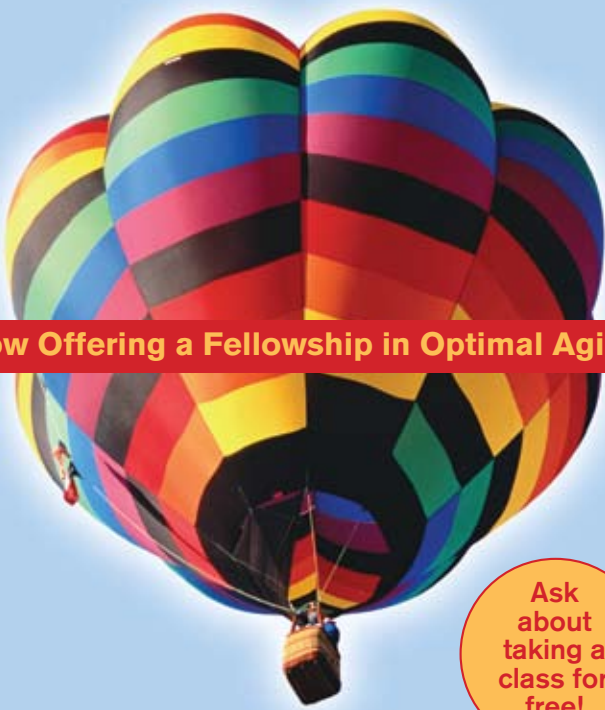
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Culture Group and Language	Belief Practices	Nutritional Preferences	Communication Awareness	Patient Care/ Handling of Death
<b>AMERICAN</b> English 	Christian and Jewish beliefs are prominent; many others exist in smaller numbers. Family-oriented.	Beef, chicken, potatoes, vegetables. Fast food. Ethnic foods.	Talkative, shake hands, not much touching during conversation. Prefer to gather information for decision making. Some hugging and kissing, mainly between women.	Family members and friends visit in small groups. Expect high-quality care.
<b>ARGENTINIAN</b> Spanish 	90% Catholic, some Protestant and Jewish. Strong belief in saints, purgatory and heaven. People from rural areas may be more superstitious.	Emphasis on meat, especially beef with homemade pastas, pastries and local wines. Mate: national beverage that is stimulating and "addictive" like coffee.	Talkative, very expressive, direct and to the point. Extroverted. Good eye contact. Like personal and physical contact such as holding hands, hugging and kissing.	Educated, yet reluctant to get medical attention or accept new medical advancements. Independent, often deny disability. Believe in natural & holistic remedies: herbal teas, pure aloe, natural oils, poultices. Family gets involved with caring for the ill family member.
<b>BRAZILIAN</b> Portuguese Diverse cultural backgrounds including: European, African, Indian. 	Mostly Catholic; some Spiritism. Growing Evangelical representation. Candomble and Macumba - similar to Santeria.	Beans and rice are staple. Feijoada- black beans, beef, pork. Churrasco (charcoal-broiled meats). Manioc (vegetable). Tropical fruits.	Very sociable. Will stand close to each other. Social kissing, hugging, touching. Good eye contact.	Emphasis on family unity - will want to be actively involved. Tend to trust medical personnel, place great faith in doctors and nurses. Some believe in herb treatment, teas and balsams.
<b>CANADIAN</b> English; French and Inuit (Eskimo) 	Protestant, Catholic and Jewish.	Comparable to American diet. French influence in Montreal and Quebec.	May prefer no touching or kissing. Take things at face value.	Follow nurses' instructions. Accustomed to socialized medicine, less litigation. Take physicians at their word. Willing to wait for treatment.
<b>CAYMAN</b> English with some changes in accent and verbs. 	People are very religious. Majority of the island is Baptist or "Church of God." <u>Voodoo and psychics are outlawed.</u>	Fish, turtle, beef, goat and conch. Rice, beans and plantains. Fried food very rich in fat: cooked or fried in coconut oil or milk.	Like to be acknowledged. Good eye contact. Prefer no touching or kissing. Very talkative and known for their friendliness. Everyone on the island knows each other.	Like to be told what is going on by doctor. Would rather talk to doctors than nurses. Prefer one-to-one care.
<b>CHINESE</b> Many dialects spoken; one written language. 	Religions: Taoism, Buddhism, Islam, Christianity. Harmonious relationship with nature and others: loyalty to family, friends and government. Public debate of conflicting views is unacceptable. Accommodating, not confrontational. Modesty, self-control, self-reliance, self-restraint. Hierarchical structure for interpersonal and family interactions.	Diet consisting of vegetables and rice. Tofu (bean curd) can be prepared in various ways. Soy sauce, MSG and preserved foods. Belief in theory of 'yin' (cold) and 'yang' (hot) when they are sick. No food with 'yin' after surgery (e.g. cold desserts, salad). Often lactose intolerant.	Quiet, polite, unassertive. Suppress feelings of anxiety, fear, depression and pain. Eye contact and touching sometimes seen as offensive or impolite. Emphasize loyalty and tradition. Self-expression and individualism are discouraged.	Women uncomfortable with exams by male physicians. May not adhere to fixed schedule. May fear medical institutions. Use a combination of herbal and Western medicine. Traditional: acupuncture, herbal medicine, massage, skin scraping and cupping. Alcohol may cause flushing.
<b>CUBAN</b> Spanish 	Catholic with Protestant minority. Santeria, which can include animal sacrifice.	Cuban bread, cafe con leche, Cuban coffee. Roast pork, black beans and rice. Plantains, yuca, chicken and rice.	Some may have a tendency to be loud when having a discussion. Use their hands for emphasis and credibility, and prefer strong eye contact.	Culture requires visiting the sick. The extended family supports the immediate family. It is an insult to the patient if there is not a large family/friend presence.
<b>ECUADORIAN</b> Spanish Quechua-Indian 	Primarily Catholic. Increase in Protestant, Baptist and Jehovah Witness. Very respectful toward religious leaders. Small percentage of population is wealthy with much political control. Family size is usually large.	Diet high in fruits and proteins, starches: rice, potatoes, corn. Food is prepared fresh daily, usually with salsa. Coastal diet: rice, fish (ceviche). Drink beer, soda.	Extremely polite. Reserved. Respectful. Especially helpful.	Prefer pampering ill family members; stay overnight with patient. Not stoic when it comes to pain. Very private, modest. Embarrassed if they do not look their best. Extremely protective of family; often parents live with grown children.
<b>PHILIPINO</b> English; Spanish; Tagalog (80 Dialects) 	Catholic. Seek both faith healer and Western physician when ill. Belief that many diseases are the will of God.	Theory of hot and cold food. Certain foods in the Philippines are traditionally eaten hot or cold, e.g. milk is only taken HOT. Fish, rice, vegetables, fruit. Meals have to be HOT.	Value and respect elders. Loving, family-oriented. Set aside time just for family.	Family decision important. Ignore health-related issues; often noncompliant. In spite of Western medicine, they often leave things in hands of God, with occasional folk medicine. Home remedies: herbal tea, massage, sleep. May subscribe to supernatural cause of diseases.
<b>GUATEMALAN</b> Spanish; Mayan heritage; European influence 	Primarily Catholic. Increase in Protestants. Very respectful toward elders. European heritage; strong family ties.	Diet high in fruits, vegetables, rice, beans and tortillas (corn flour bread).	Quiet, reserved and respectful. Will not question for fear of insulting professional.	Modest, private and stoic. Believe in alternative methods of healing.
<b>HAITIAN</b> Creole; French is taught in schools. 	Catholic and Protestant. Voodoo is practiced. Large social gap exists between wealthy and poor citizens.	Large breakfast and lunch. Light dinner. Rice, fried pork triot and red beans. Herbs and cloves.	Quiet, polite. Value touch and eye contact.	Obedient to doctor and nurse but hesitant to ask questions. View use of oxygen as indication of severe illness. Occasionally share pre-scriptions and home remedies.

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Culture Group and Language	Belief Practices	Nutritional Preferences	Communication Awareness	Patient Care/ Handling of Death
<b>HINDU</b> Hindi	The belief of cyclic birth and reincarnation lies at the center of Hinduism. The status, condition and caste of each life is determined by behavior in the last life.	Cow is sacred. No beef. Some are strictly vegetarian.	Limit eye contact. Do not touch while talking.	Do not try to force foods when religiously forbidden. Death- the priest may tie a thread around the neck or wrist to signify a blessing. This thread should not be removed. The priest will pour water into the mouth of the body. Family will request to wash the body. Eldest son is responsible for the funeral rites.
<b>JAMAICAN</b> English; Patois broken English 	Christian beliefs dominate (Catholic, Baptist, Anglican). Strong Rastafari influence.	Beef, goat, rice and peas, chicken, vegetables, fish, lots of spices. Some avoid eating pork and pork products because of religious beliefs.	Respect for elders is encouraged. Reserved; avoid hugging and showing affection in public. Curious and tend to ask a lot of questions.	Will try some home remedies before seeking medical help. Like to be completely informed before procedures. Respectful of doctor's opinion. May be reluctant to admit that they are in pain. May not adhere to a fixed schedule.
<b>JAPANESE</b> Japanese 	Self-praise or the acceptance of praise is considered poor manners. Family is extremely important. Behavior and communication are defined by role and status. Religion includes a combination of Buddhism and Shinto.	Food presentation is important. Fish and soybean are main sources of protein, as well as meats and vegetables (some pickled). Rice and noodles; tea; soy sauce. Often lactose intolerant.	Use attitude, actions and feelings to communicate. Talkative people are considered show-offs or insincere. Openness considered sign of immaturity. Lack of self-control. Implicit non-verbal messages are of central importance. Use concept of hierarchy and status. Avoid conflict. Avoid eye contact and touch.	Family role for support is important. Insulted when addressed by first name. Confidentiality is very important for honor. Information about illness kept in immediate family. Prone to Keloid formation. Cleft lip or palate not uncommon. Alcohol may cause flushing. Tendency to control anger. May be reluctant to admit they are in pain.
<b>JEWISH</b> Many from E. European countries. English; Hebrew; Yiddish. Three basic groups: Orthodox (most strict), Conservative, Reform (least strict).	Israel is the holy land. Sabbath is from sundown on Friday to sundown on Saturday. It is customary to invite other families in for Friday evening Sabbath dinner.	Orthodox and some conservatives maintain a Kosher diet. Kosher food is prepared according to Jewish law under Rabbinical supervision. Eating of unclean animals is forbidden. Blood and animal fats are taboo (blood is synonymous with life). Do not mix meat with dairy products.	Orthodox men do not touch women, except their wives. Touch only for hands-on care. Very talkative and known for their friendliness.	Stoic and authoritative; respect health care workers who show self-confidence. Appreciate family accommodation. Jewish law demands that they seek complete medical care. Donor transplants are not acceptable to Orthodox Jews, but are to Conservative & Reform. Death: Cremation is discouraged. Autopsy is permitted in less strict groups. Orthodox believe that entire body, tissues, organs, amputated limbs and blood sponges need to be available to family for burial. Do not cross hands in post-mortem care.
<b>KOREAN</b> Hangul	Family-oriented. Believe in reincarnation. Religions include: Shamanism, Taoism, Buddhism, Confucianism, Christianity. Belief in balance of two forces: hot and cold.	High fiber; spicy seasoning; rice; Kim Chee (fermented cabbage). Often lactose and alcohol intolerant. Speak little during meal.	Reserved with strangers. Will use eye contact with familiar individuals. Etiquette is important. First names used only for family members. Proud, independent. Children should not be used as translators due to reversal of parent/child relationship.	Family needs to be included in plan of care. Prefer non-contact. Respond to sincerity.
<b>MEXICAN</b> Spanish; people of Indian heritage may speak one of more than 50 dialects. 	Predominantly Roman Catholic. Pray, say rosary, have priest in time of crisis. Limited belief in "brujeria" as a magical, supernatural or emotional illness precipitated by evil forces.	Corn, beans, avocado, chiles, yellow rice. Heavy use of spices.	Tend to describe emotions by using dramatic body language. Very dramatic with grief but otherwise diplomatic and tactful. Direct confrontation is rude.	May believe that outcome of circumstances is controlled by external force; this can influence patient's compliance with health care. Women do not expose their bodies to men or other women.
<b>MUSLIM</b> Language of the country and some English.	Believe in one God "Allah" and Mohammed, his prophet. Five daily prayers. Zakat, a compulsory giving of alms to the poor. Fasting during the month of Ramadan. Pilgrimage to Mecca is the goal of the faithful.	No pork or alcohol. Eat only Halal meat (type of Kosher).	Limit eye contact. Do not touch while talking. Women cover entire body except face and hands.	Do not force foods when it is religiously forbidden. Abortion before 130 days- fetus treated as discarded tissue; after 130 days, as a human being. Before death, confession of sins with family present. After death, only relatives or priest may touch the body. Koran, the holy book, is recited near the dying person. The body is bathed and clothed in white and buried within 24 hours.
<b>NORTHERN EUROPEAN</b> Language of the country and some English.	Very similar to American customs. Protestant with large Catholic population. Multi-ethnic groups.	Comparable to American diet- meat, vegetables and starches. Coffee, hot tea and beer.	Courtesy is of utmost importance. Address by surname and maintain personal space and good eye contact.	Maintain modesty at all times. Stoic regarding pain tolerance. Death is taken quietly with little emotional expression. Patients/family tend not to question medical authority.
<b>SOUTHERN EUROPEAN</b> Language of the country and some English.	Roman Catholic, Protestant, Greek Orthodox and some Jewish.	Main meal at midday: pasta, meat and fish with cheeses and wine. Fresh fruit. Espresso coffee.	Talkative, very expressive. Direct and to the point. Extroverted. Good eye contact. Like personal and physical contact: holding hands, patting on the back, kissing.	Educated, yet reluctant to get medical attention. Very independent. Birth control and abortion are accepted in some countries and not in others. Family gets involved with caring for ill family member.
<b>VIETNAMESE</b> Vietnamese language has several dialects- also French, English, Chinese. 	Family loyalty is very important. Religions include Buddhism, Confucianism, Taoism, Cao Di, Hoa Hoa, Catholicism, occasional ancestral worship. General respect and harmony. Supernatural is sometimes used as an explanation for disease.	Rice often with green leafy vegetable, fish sauce added for flavor. Meat used sparingly and cut into small pieces. Tea is main beverage. Often lactose and alcohol intolerance.	Communication-formal, polite manner; limit use of touch. Respect conveyed by nonverbal communication. Use both hands to give something to an adult. To beckon someone, place palm downward and wave. Don't snap your fingers to gain attention. Person's name used with title, i.e. "Mr. Bill," "Director James." "Ya" indicates respect (not agreement).	Negative emotions conveyed by silence and reluctant smile; will smile even if angry. Head is sacred-avoid touching. Back rub- uneasy experience. Common folk practices- skin rubbing, pinching, herbs in hot water, balms, string tying. Misunderstanding about illness- drawing blood seen as loss of body tissue; organ donation causes suffering in next life. Hospitalization is last resort. Flowers only for the dead.

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# EVIDENCE-BASED TREATMENT FOR BONE HEALTH

## Fracture Prevention, Bone Strengthening, and Improving Quality of Life

Kenneth L. Miller, PT, DPT

### INTRODUCTION

“Bone, to be maintained, needs to be mechanically strained-within its biomechanical limits.” – Mehrsheed Sinaki

With an understanding of bone biology, a physical therapist can provide a more thorough individualized exercise prescription for increasing or maintaining bone density, improve posture and body mechanics, provide for fall prevention, and return our patients/clients back to optimal function after a fracture.

### BONE BIOLOGY

There are 4 cellular elements of bone: osteoblasts, osteocytes, bone lining cells, and osteoclasts.<sup>1</sup> Of the 4 cell types osteoblasts are bone formation cells whereas the osteoclasts are the bone resorption cells.<sup>1,2</sup> Through the lifespan, the skeletal system continually undergoes the cyclical process of bone remodeling which includes both bone formation and resorption. Osteoclasts remove bone, followed by osteoblasts that secrete osteoid, resulting in bone formation. Bone loss can occur if there is an imbalance between bone formation and resorption.<sup>2</sup>

It is widely known that weight-bearing exercise and resistive exercise improve bone density and bone strength.<sup>3-5</sup> The reason for increased bone density and bone strength lies in the properties of Wolff's Law in that a bone grows or remodels in response to the forces or stresses placed on it.<sup>6</sup> Weight-bearing exercise and resistive exercise apply these necessary forces (stresses and strains) that stimulate bone formation.<sup>1,6</sup>

Downey et al<sup>1</sup> report that it is vital for physical therapists to understand the role of exercise (weight-bearing exercise or resistive exercise) in the prevention or treatment of osteoporosis. Mechanical loads applied to the bones create strain and the larger the load, the greater the strain. This strain is transmitted to the bone cells (osteoblasts, bone lining cells, and osteocytes). In response to mechanical strain, there is an increase in

cell metabolism and collagen synthesis.<sup>7</sup> When the load exceeds the threshold for remodeling, bone strength gradually increases.<sup>1</sup> Kukuljan et al reported improved bone mineral density in men for both the lumbar spine (1.4-1.5% net gain) and femoral neck (1.8% net gain) resulting from a multi-component exercise program including progressive resistive training and weight-bearing impact exercises.<sup>3</sup> Bocalini et al<sup>8</sup> reported reduced demineralization in postmenopausal women who participated in a strength training program versus a control group indicating preservation of bone mineral density ( $p < .05$ ).

### EVIDENCE-BASED PRACTICE

Prior to 1980, spinal flexion exercises were prescribed for the management of low back pain following vertebral fracture. It was thought that by stretching the paraspinal muscles believed to be in painful co-contraction (muscle guarding the fractured vertebral bodies) pain would be alleviated. However, Sinaki<sup>7</sup> reports that in a study of postmenopausal spinal osteoporosis, subjects in the spinal flexion exercise group resulted in increased vertebral fractures (89%) as compared to spinal extension exercise group (16%). The difference between spinal extension treatment group and spinal flexion treatment group was most significant ( $P < .001$ ). This information provided therapists with convincing evidence to provide spinal extension exercises which proved a more effective treatment option for our patients and spinal flexion exercises became contraindicated as well.

The above illustration is a careful reminder to why evidence-based practice (EBP)<sup>9</sup> is so important to the quality of care we provide to the patients we are entrusted to serve. “Evidence-based practice requires the integration of the best research evidence with our clinical expertise and our patient's unique values and circumstances.”<sup>9</sup> To practice EBP means to critically appraise the best available evidence. Integrate it with our clinical ex-

pertise and with our patient's unique biology, values, and circumstances. Finally, evaluate our effectiveness. The purpose of this article is to provide evidence-based treatment for better bone health.

### PRESCRIBING EXERCISE TO INCREASE/MAINTAIN BONE HEALTH

Kukuljan et al<sup>3</sup> studied the effects of a multicomponent exercise program and calcium-vitamin-D<sub>3</sub>-fortified milk on bone mineral density in older men concluded that the exercise resulted in significant BMD changes in the femoral neck and lumbar spine. Exercise led to 20% to 52% improvements in both upper and lower body muscle strength relative to no exercise (control group) after 12 months. See Table 1 for the exercise prescription.

In a study by Karinkanta et al<sup>10</sup> of home-dwelling elderly women between 70 and 78 years of age, subjects were placed into 1 of 4 groups, resistance training, balance-jumping training, combination of resistance/balance-jumping training, and a control group. Significant improvements were noted in isometric leg extension force for the resistance group (14%) and the combination group (13%) as compared to the control group. In addition, figure-of-8 running time improved significantly more in the balance group (6%) and combination group (8%) compared to the control group. A significant treatment effect was found between the combination group and control group (10%). The efficacy analysis indicated the mean benefit of 12% in the balance group and 11% in the combination group compared to the control group. The bone measurement results at the femoral neck bone mineral content (BMC) did not show any significant treatment effect. There was a significant effect on the section modulus (Z) of the femoral neck between the resistance group vs. the control group (5%) but, due to technical limitations this analysis could be performed in 124 of 144 measured participants. However,

**Table 1. Exercise Prescription to Increase/Maintain Bone Health used by Kukuljan et al<sup>3</sup>**

Duration	Frequency	Exercise protocol	Resistance/Intensity
12 Months	3 x per week- non consecutive days	<p>Session length- 60-75 minutes (each session)  Warm-up, cool down activities  Progressive Resistive Training at moderate to high intensity using machine and free weights</p> <ul style="list-style-type: none"> <li>• Squats(leg press)</li> <li>• Lunges</li> <li>• Hip abduction/adduction</li> <li>• Latissimus pull down</li> <li>• Back extension</li> <li>• Abdominal and core stabilization exercise</li> <li>• Leg extension</li> <li>• Calf raises</li> <li>• Bench press</li> <li>• Military press</li> <li>• Bicep curl</li> <li>• Tricep extension</li> <li>• Lumbo-pelvic and spine stabilization exercise</li> </ul> <p>Core muscle stabilization exercises</p> <p>Moderate impact weight-bearing activities (3 exercises interspersed between the resistance training exercises):</p> <ul style="list-style-type: none"> <li>• Single and double foot multi-directional landings</li> <li>• Bench stepping</li> <li>• Jumping off 15 and 30 cm boxes.</li> </ul>	<p>Progressive Resistive Training:  The 12-month training program was divided into 4 distinct 12-week mesocycles, each with three, four week microcycles which were designed to be more progressively challenging.  1<sup>st</sup> 12-week introductory period:  3 sets of 15-20 reps at 50-60% of 1-RM strength.  Thereafter, 2 sets of 8-12 reps (including 1 warm- up set at 60-65% of 1-RM and 1 training set at 60-85% of 1-RM.  For the first 4-weeks, of each mesocycle, the training set was set at an intensity of 60-70% of 1-RM, which increased to 80-85% for the remaining 8 weeks of each mesocycle.</p> <p>Weight-bearing impact component:  For each 12 week mesocycle, 3 sets of 10 reps for each exercise, progressively increased to 20 reps at the end of each mesocycle.</p>

this effect on Z did not reach statistical significance. Tibial shaft bone strength index (BSI) decreased 2% less in the combination group than in the control group. Table 2 outlines the exercise prescription used by the Karinkanta team.

intensity exercise for subjects in both exercise groups. The subjects were on hormone therapy and were taking recommended daily Calcium and vitamin D supplements during the study. Interestingly enough, due to similar improve-

Chan et al<sup>12</sup> have made recommendations in a World Health Organization (WHO) Bulletin, "Not only does exercise improve bone health, it also increases muscle strength, coordination, balance, flexibility, and leads to better

**Table 2. Exercise Prescription to Increase/Maintain Bone Health used by Karinkanta et al<sup>10</sup>**

Duration	Frequency	Exercise protocol	Resistance/Intensity
12 Months	3 x a week for 12 months	<p>Session length- 40-50 minutes (each session)  Warm up of 7-10 minutes  25-30 min of training  Resistance training group (using resistance training machines):</p> <ul style="list-style-type: none"> <li>• Raising from a chair using a weight vest</li> <li>• Squatting</li> <li>• Leg Press</li> <li>• Hip Abduction</li> <li>• Hip Extension</li> <li>• Calf Rise</li> <li>• Rowing</li> </ul> <p>Balance-Jumping Training Group:</p> <ul style="list-style-type: none"> <li>• Static Balance</li> <li>• Dynamic Balance</li> <li>• Jumps and other impacts</li> <li>• Changes of direction (acceleration and deceleration, back and forth, sideways walking with stops and turns) with music</li> <li>• Step-board</li> <li>• Modified aerobics</li> <li>• Step Aerobics</li> </ul>	<p>Resistance training group:  Intensity 50-60% of 1-RM using 2 sets of 10-15 reps.</p> <p>Thereafter, intensity progressed to 75-80% of 1-RM with work range of 3 sets of 8-10 reps.</p> <p>Balance-Jumping Training group:</p> <p>During the first 6 weeks, the trainees became accustomed to the balance and agility training.</p> <p>Then, the degree of difficulty of movements, steps, impacts and jumps gradually increased.</p> <p>The type of training was modified aerobics or step aerobics alternating every two weeks (2 weeks' aerobics, 2 weeks' step aerobics) in 12 weeks periods.</p> <p>There were 4 different aerobic and step aerobics programs with different combinations of the balance-jumping movements as noted above.</p>

In a 2 year randomized controlled trial, Judge et al<sup>11</sup> found a femoral BMD increase of 1.5% in its lower extremity training group and an increase of 1.8% in its upper extremity training group. Improvements were noted in Trochanter BMD as well (2.4% in the lower extremity group and 2.5% in the upper extremity group). This predominantly home-based program used moderate

ments of BMD in both exercise groups, Judge et al have concluded that the results support a systemic response rather than a site-specific response to moderate resistance training. However, looking at the protocol, both groups performed torso exercises and followed a walking program which may have influenced BMD as well. See Table 3 for the exercise protocol used by Judge et al.

overall health. Walking, aerobic exercise, and T'ai chi are the best forms of exercise to stimulate bone formation and strengthen the muscles that help support bones. Encouraging physical activity at all ages is therefore a top priority to prevent osteoporosis."

## IMPROVING POSTURE

A physical therapist should include



postural exercises and body mechanics training with any patient/client with Low Bone Mass (LBM) or osteoporosis because research has shown that spinal extension exercises not only prevent progression of kyphosis, they can reduce the risk of re-fracture following vertebroplasty.<sup>13,14</sup>

tic band shoulder flexion with elbows straightened, elastic band axial extension, corner stretch for anterior chest muscles (pectoralis), supine abdominal tightening (draw in umbilicus) then perform bilateral heel slides, prone trunk extension, quadruped arm and leg lifts,

Program-Exercise (ROPE), the median time of refracture was 60.4 months as compared to the PVP alone which was 4.5 months. The ROPE program consisted of isometric back-extensor muscle strengthening and proprioceptive postural retraining.<sup>14</sup>

**Table 3. Exercise Prescription to Increase/Maintain Bone Health used by Judge et al<sup>11</sup>**

Duration	Frequency	Exercise protocol	Resistance/Intensity
2 years	3 x per week	<p>Session length- 45 minutes-1 hour (each session) Warm-up, cool down activities were the same for both intervention groups.</p> <p>Warm up (5 minutes) –</p> <ul style="list-style-type: none"> <li>• Marching in place</li> <li>• Knee raises</li> <li>• Side Steps</li> <li>• Reaching with arms overhead, forward, behind</li> <li>• Static stretch of torso, arms legs</li> </ul> <p>Cool down (5 minutes) –</p> <ul style="list-style-type: none"> <li>• Static stretching – Lower body group: hamstrings, quads, ankle flexors/extensors, hip flexors/extensors, hip abductors/adductors, abdominal and lower back</li> <li>• Static stretching – Upper body group: triceps/biceps, pectoralis, deltoids, oblique, trapezius, abdominal and lower back</li> </ul> <p>Lower body intervention (35 minutes)- Resistance exercises consisted of 3 exercises using a weight belt (chair rise, stair climb, calf raise) Hip flexions used ankle weight Hip abductions used no added weights</p> <p>Upper body intervention (35 minutes)- Resistance exercises consisted of 7 exercises (4 using theraband, 3 of possible 9 dumbbell exercises)</p> <p>Theraband exercise</p> <ul style="list-style-type: none"> <li>• Horizontal chest press with external shoulder rotations</li> <li>• Shoulder external rotations</li> <li>• Shoulder abduction</li> <li>• Overhead press</li> </ul> <p>Dumbbell exercise (rotated 3 groups of 3 exercises)</p> <p>Group 1 modified push-ups (kneeling and using step for hand support), upright rows (standing), shoulder forward flexion</p> <p>Group 2 single arm rows (standing), shoulder abduction, elbow extensions</p> <p>Group 3 shoulder press, bicep curls, wrist pronation/supination</p> <p>Torso exercise/stretching Both groups performed</p> <ul style="list-style-type: none"> <li>• Prone lower-back and mid-back extensions (3 sets of 10)</li> <li>• Supine modified sit up, pelvic tilts, lumbar spine rotations and pelvic rotation (1 set of 10 or 20)</li> <li>• Stretch of hip extensors, hamstrings, gastroc/soleus, quads, gluteus, low back and torso</li> </ul> <p>Walking Both groups walk for 45 minutes per week</p>	<p>Lower body intervention- Progressive resistance starting at 6% of body mass. Progression based on fatigue and ability to maintain form (0.9 kg increments)</p> <p>Chair rise from 42.5 cm armless chair</p> <p>Step ups progressed from 15 cm height to 22.5 cm over 3 months. Sets consisted of 10 step ups per leg, alternating legs Participants alternated between step up and over the platform and step up and back.</p> <p>For chair rise and step-ups 3 sets of 10 were performed. A 4 set was added at 1 year.</p> <p>For standing heel ups (calf raises) the first set bi-lateral was followed by 3 sets of uni-lateral heel ups at slow speed.</p> <p>Unilateral hip flexion with ankle weights, 3 sets of 10 reps with resist of 1.1 kg to 3.6 kg.</p> <p>Upper body intervention</p> <p>Elastic band exercises performed seated. 2 sets of 10-14 reps</p> <p>Dumbbell exercises</p> <p>Performed seated (except where noted) 2 sets of 10-14 reps. Progressed resistance based on good form for 12-14 reps.</p>

Ball and associates developed a 9 exercise protocol to strengthen spinal extensors which was implemented in a 1 year prospective study. The spinal extension exercises resulted in improvements in all measured parameters of kyphosis in the study participants including cervical depth ( $-.89 \pm 11$  cm,  $p = .05$ ) and thoracic area ( $-12.0 \pm 1.7$  cm<sup>2</sup>,  $p \pm .016$ ). The most significant effect was in the area under the thoracic area curve ( $p = .0001$ ).<sup>13</sup> The participants performed elastic band horizontal abduction, elas-

tic band shoulder retractions with arms at side, bilateral over head reach from a start position of shoulder abduction of 90°, shoulder external rotation of 90°, and elbows flexed to 90°.

It has been reported that the refracture rate after percutaneous vertebroplasty (PVP) can be very high. Huntoon reported that 75% of the patients in the PVP group had a refracture within 12 months. But, as a result of the spinal extension exercise intervention called Rehabilitation of Osteoporosis

In a study by Hongo et al<sup>15</sup> low-intensity back-strengthening exercise was very effective in improving quality of life and back extensor strength in patients with osteoporosis. The low intensity exercise consisted of lying prone on a bed with a pillow under the abdomen (spine is slightly flexed). "Following a warm up exercise in which the spine was slowly extended with the aid of both arms 10 times, they were instructed to lift the upper trunk off the bed towards the neutral position for 5 seconds with a 10



second interval between the contractions. Each contraction was repeated 10 times as a set and the duration of the exercise ranged from 3 to 5 minutes. This exercise was performed one set a day 5 days a week.<sup>15</sup> Resulting from this intervention, Hongo et al reported that spinal ROM did not change, but pain was reduced significantly ( $p = 0.001$ ), activities of daily living (ADLs) improved ( $p = 0.017$ ), and posture improved ( $p = 0.0063$ ).

In a pilot study by Chien et al,<sup>16</sup> home-based trunk strengthening exercise demonstrated improvement in trunk mobility and strength, and enhanced quality of life (QOL). The home program consisted of supine exercises (isometric abdominal contraction, gluteal setting and bridging, pelvic raising with legs crossed, pelvic raising with single leg raise), prone exercises (head and thorax extension with chin retraction, leg raise to extend spine, (alternating legs), combination arm and leg raises), quadruped exercises (alternate arm raises, alternate leg raises, opposite arm and leg raises).<sup>16</sup>

## FALL PREVENTION

In a 5 month prospective study to prevent falls in the elderly, Iwamoto et al<sup>17</sup> developed an exercise program that addressed flexibility, balance, muscle power, walking ability, and reduced the incidence of falls. Table 4 contains the program which has demonstrated significance when comparing the exercise group to the control group. All indices showed statistical significance for flexibility (finger floor distance- right and left directions), unipedal standing time, tandem gait step number, tandem standing time, Timed Up and Go (TUG), chair-rising time, 10-m walking time, and step length. In addition, the incidence of falls during the study was significantly lower in the exercise group as compared to the control group (0.0% vs 12.1%,  $p = 0.0363$ ).

A study by Vaillant et al<sup>18</sup> demonstrated significant balance improvements on the TUG and one leg balance (OLB) test following implementation of an exercise program. The subjects participated in 12 sessions in all, at a frequency of 2 times per week. The sessions included sensory awareness exercises (massaging the soles of the feet, self-mobilizing the feet); stretching exercises for the lower limb muscles; muscle-strengthening exercises; proprioceptive awareness training of the

**Table 4. Daily Exercise Program for the Prevention of Falls used by Iwamoto et al<sup>17</sup>**

Calisthenics
<ul style="list-style-type: none"><li>• Anterior, right, left and posterior flexion of the body: 5 times in each direction a day</li></ul>
Body balance training
<ul style="list-style-type: none"><li>• Tandem standing (3 min in each leg forward: 2 sets a day)</li><li>• Tandem gait (10 steps: 5 sets a day)</li><li>• Unipedal standing (3 min in each leg: 2 sets a day)</li></ul>
Muscle power training
<ul style="list-style-type: none"><li>• Chair-rising training (10 times: 3 sets a day)</li></ul>
Walking ability training (stepping)
<ul style="list-style-type: none"><li>• Having one step in the forward, back, right and left directions: 10 times for each stepping a day)</li></ul>
All of the exercises were supervised and performed in the clinic or hospital 3 days/week taking about 30 minutes.

lower limbs, trunk and cervical spine, eye-neck coordination exercises; balance, coordination, and agility (ball games) exercises; functional exercises (walking forward, backward and sideways); and exercises to minimize the adverse consequences of falls (getting up from the floor). In addition to the group sessions, patients were given a home-exercise program that included massaging the feet with a ball, games to develop upper and lower limb coordination, and balance exercises. OLB times improved between 3 and 5 seconds which was significant ( $p = 0.12-0.21$ ). TUG times also improved between 1 and 2 seconds which also was significant ( $p = 0.05-0.03$ ). No additional benefits were achieved by adding cognitive tasks.

Sinaki and associates<sup>19</sup> reported significant reduction in risk of falling and back pain in women subjects with osteoporotic-kypnotic posture using a spinal proprioceptive extension exercise program. This 4 week program used a weighted kypho orthosis (WKO) with a 1 kg weight suspended between T10 and L4 of the spine. The subjects were instructed in spinal proprioceptive extension exercise dynamic program and a gait program to be performed at home with use of a WKO. The daily home program consisted of wearing the WKO while performing 10 repetitions of back extension exercises for reduction of kyphosis without increasing lumbar lordosis. The subjects also performed specific proprioceptive exercises for 10 minutes twice daily to improve balance. The subjects were instructed to wear

the WKO daily for one-half hour in the morning and one-half hour in the afternoon. As a result of this program, significant improvements were noted in the osteoporotic-kypnotic group as compared to the control group for balance ( $p = .003$ ), back extensor strength ( $p < .001$ ), and back pain ( $p = .001$ ).

## CONCLUSION

Understanding bone biology and using evidence-based practice in the management of LBM and osteoporosis, a physical therapist has many powerful treatment options to assist their patients/clients with best practice guidelines and most effective outcomes. Treating LBM requires a multifaceted approach to provide treatment to improve bone mineral density, improve back extensor strength, improve posture and reduce fracture risk, improve balance and reduce falls risk, reduce pain, and improve quality of life.

When developing an exercise program, one should consider incorporating the varied types of exercise described here such as: weight bearing exercise (impact and jumping training), resistive training, postural training, aerobic training, balance, and gait training. By doing this, our patients will be provided with the necessary tools to improve bone health, restore or enhance their quality of life, and reduce their risk of injury.

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Kenneth Miller is the clinical educator for Catholic Home Care and Good Samaritan Home Care where he coordinates advanced clinical training and provides continuing education to participants. He currently practices in home care specializing in the care of the older patient. Research interests include balance and fall prevention in the elderly population. He can be reached by email at [kenmpt@aol.com](mailto:kenmpt@aol.com).

## PROFESSIONALISM IN PHYSICAL THERAPY: DEFINING ACCOUNTABILITY

*Mary Ann Wharton, PT, MS, Chair, Pennsylvania Chapter Ethics Committee*

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In the previous PPTA newsletter, I addressed ethics and professionalism as they relate to physical therapy practice and to Vision 2020. In that commentary, I noted that APTA's Ethics and Judicial Committee recently assumed responsibility for promoting professionalism and the core values adopted by the Board of Directors as part of their ongoing charge of overseeing and furthering ethical practice. Specifically, I discussed the core values of compassion and caring, and identified links to the Code of Ethics that support these values.

In this article, I will examine the core

value of accountability as it relates to current physical therapy practice. I feel that comments on this topic are particularly timely, in light of two outstanding presentations that were made to the membership at the PPTA Annual Meeting: Paul Rockar's Presidential address, and Laurie Hack's observations on Direct Access and Vision 2020.

APTA defines the core value of accountability as, "active acceptance of the responsibility for the diverse roles, obligations, and actions of the physical therapist including self-regulation and other behaviors that positively influence patient/client outcomes, the profession and the health needs of society." (A Normative Model

of Physical Therapist Professional Education: Version 2004). One outcome that is expected by professionals is adherence to practice standards consistent with the professional Code of Ethics. This value obligates physical therapists to recognize ethical dilemmas, and assume responsibility for an ethical course of action. The Principles in the Code of Ethics clearly provide broad guidelines for expected ethical practice. They discuss compassionate and trustworthy care, adherence to laws and regulations that govern physical therapy, responsibility to exercise sound professional judgment, and the obligation to maintain competence and promote high

*(continued on page 22)*

# LOVING IN LATER YEARS

Patrice Antony, PT, GCS, CAPS

As Americans are living to be older, they are also finding love in later years. It is estimated that by 2020, the number of people aged 65 and older will be > 55 million (a 36% increase from the year 2000). Although solid statistics are hard to come by, it is estimated that 500,000 of those over 65 will marry--most for the second or third time.

At first blush, the romantic concept of finding love in the golden years sounds charming. Sweet, lonely old people finding each other gives hope to us all for our golden years. In fact, it can get VERY complicated--both emotionally and financially.

Most seniors have children from prior marriages, grandchildren, and even great grandchildren. Many are widowed after long relationships with prior partners. There is a sense of guilt and betrayal in starting a new relationship which is sometimes more of an issue with the children than the seniors themselves. There is also the ageist issue of sex in later years as being unseemly, silly, or disgusting.

Despite this, seniors have core values regarding marriage and partnership. Religious beliefs guide moral values. Marriage is a natural progression for a committed relationship in the minds of many seniors. Single seniors often feel like a third wheel among their married peers. Some widows feel that marrying again is a violation of their vows to their first partner.

In later years, fears of becoming a burden to their children can drive many seniors into relationships they might not otherwise consider. Financial worries, loneliness, and co-dependence on partners for physical needs in performing activities of daily living can entice seniors to turn to each other.

Sharing the cost of living, income sources, and health insurance benefits are other reasons that seniors may seek a partner. Women who have never handled household finances or lived alone may actively seek someone to fill that role in fear of having to do it themselves.

While marriage definitely has its advantages, there are also issues that

come with this contract. Sometimes re-marriage can terminate survivor pension rights from the first marriage. There are some tax disincentives. Sometimes bad credit and creditor liabilities can transfer to a spouse.

Bringing children together from prior marriages can be a nightmare. Seniors usually believe that their new relationship will be stress-free because their children are grown and out of the nest. In reality, many children feel that their prior parent is being forgotten and that their surviving parent is violating their marital vows. They sometimes feel displaced by the new partner, and will actually distance themselves from the new couple feeling that they are in the way or no longer needed.

***Financial worries, loneliness, and co-dependence on partners for physical needs in performing activities of daily living can entice seniors to turn to each other.***

Many children worry about their inheritance when their parent re-marries. They are concerned that their parent's assets will transfer to the spouse and possibly to the spouse's family. They are often afraid to broach this topic with their parent for fear of sounding greedy. In reality, this is a very necessary topic that needs to be approached before the union. Many seniors are very naïve as to how the various state laws work for estate settlement. They may not be aware of what tools are available for protecting their assets and estate intentions.

There is generally a shifting role as seniors reach advanced age. Who is responsible for the spouse that is not aging successfully? Sometimes step children watch their parent's income disappear trying to take care of a new spouse with medical issues. What if there are mental issues with one or both of the new couple that wants to marry? Are they competent to enter this type of contract? Who makes that decision? Where is the dividing line

when there are two sets of stepchildren in the picture? These kinds of issues need to be discussed with **all** family members prior to a union. It is not uncommon to find one side of the family assuming all the roles of caregiving to both spouses. This leads to resentment for the caregiving family and has led to many a bitter argument between both families.

As horrible as it sounds, vulnerable seniors can fall prey to those who pose as caregivers, then marry the seniors as a way of inheriting the assets after the senior dies. This concept of "gold digger" is certainly not new, but it is shocking at how prevalent it still is. Many times an older senior is flattered to have a younger partner show interest, and incapable of believing that this person can ever take advantage of them. Unfortunately, there is very little that the children can do to prevent this if the parent is competent to make their own decisions. Many are afraid to speak up for fear of making things worse and often let things get too far before making the attempt to put the issue on the table.

Another alarming issue is the rise of sexually transmitted diseases (STDs) among seniors. Recent statistics from the Center of Disease Control indicate that the number of new HIV cases is actually growing faster in the over 50 age group than the under 40 age group. Many of the STDs prevalent today were not even heard of when seniors were younger. There is a huge naivety among seniors about their ability to contract an STD. The concept of "safe sex" is new to them. There may be ignorance as to how to use a condom and certainly embarrassment about purchasing such things. Clinicians don't spend enough time talking to older clients about sex and STDs. Older individuals are also less likely to get screened for STDs, so the prevalence can be even worse than what has actually been measured.

Because of these complex issues, many seniors are choosing to co-habit rather than marry. This can present awkward issues to Assisted Living Facilities. As consenting adults, the administration



wants to accommodate, but how does the billing work? What if one of the partners has dementia and the family that pays his/her bill refuses to work with the situation? If a person with dementia is deemed to not have capacity, are they capable of making their own decisions on sex with a partner? How does the facility intervene with this?

As ethically challenging as all of this is, there are several steps that can make this easier:

1. The first is dialogue. The couple must meet with the family of both sides to discuss their wishes. All parties have to have opportunity to air their concerns.
2. As it is at any age, marriage counseling is highly advised. Many seniors feel that they have limited time left and don't want to bother with this. This is highly irresponsible. A marriage decision at any age has ramifications that far exceed just the two partners. The older you are, the more complicated this gets and the more people it affects.
3. It is imperative to determine if both partners have capacity to make decisions. Some people make really bad decisions, but are fully capable of making decisions. If one or both of the partners are deemed to be incapacitated, the final decision may fall to the guardian or durable power of attorney.
4. Estate considerations need to be addressed. Marriage is a legal contract and WILL alter estate planning. The estate plan needs to be discussed candidly for each party. It is preferable to include all parties that will be affected by an altered estate plan. Although it is ultimately the parent's decision (if he/she has capacity to make it), it is crucial to get everyone on the same page in order to avoid serious relationship breaches. Many times, the love struck parties are not thinking of legal and tax ramifications. They are not considering the fact that their finances can be shifted in radically different ways than what they intended for their immediate families.
5. Marriage can both open and close opportunities for public assistance and Veteran benefits. It can affect available income for the spouse to be

as well as any other dependents (such as a disabled child).

6. Prenuptial agreements may be helpful, but many seniors have no idea how these work. The regional legal rules have to be researched to know what is allowable in each state. In Florida, for example, a spouse is entitled to 1/3 of the estate regardless of what a will or prenuptial says. In most cases, the children of the lovebirds have to help their parent figure out how to do this and help to get it done.
7. While marriage is one way to express commitment to a relationship, there are other alternatives. I know of at least one family who had a "commitment ceremony" vs. wedding for their loved ones. In this case, the parents were very advanced in years (over 80) and living in an Assisted Living Facility because the memory loss was too great to live alone. The ceremony had the feel of a wedding, but not the marriage contract. The facility hosted the event. This enabled the couple to celebrate their commitment but not alter their estate plans. The facility essentially "split the bill" for their shared apartment, and life went on as usual.
8. Spiritual and cultural values can impact how a commitment is blessed. Certain churches, mosques, or synagogues may not recognize a commitment ceremony without a recognized process that is acceptable to that religion.
9. If the lovebirds reside in a facility, it is imperative to include the administration of the facility in what is going on. The social worker of the facility can assist with mediation between families and assist with guidance on the options.
10. Consulting with an elder law attorney is highly recommended for adjusting the estate plan, as well as the advanced directives to include the relevant parties. This specialty of law can also review the ramifications of a new marriage on existing benefit options.

While these situations are not all that common, as the population of seniors continues to grow both in numbers and longevity, we can expect that this will come up more often. Grown children need to be included with these decisions

even though the parent and their new love are adults and may be capable of making the decision on their own. If you are looking for interesting topics to bring to your family holiday meal--this would be a great one!

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Patty Antony is a physical therapist with 24 years of experience. She graduated from Florida International University in 1981 with a bachelor's degree in physical therapy. She is also a board certified geriatric clinical specialist. Patty is the founder and President of Elder Advocates Incorporated. She has extensive background in long-term care, teaching, and lecturing. She can be reached at [patty@elderadv.com](mailto:patty@elderadv.com).

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## ARE WE SLEEPING?

Russell A. Certo, PT, OCS  
Vincenette San Lorenzo

*The following article is reprinted with permission from the APTA Private Practice publication, Impact. While the primary environment discussed is outpatient, the focus is exercise. The information is very pertinent to the goals of the Section on Geriatrics and to the expertise of our members as we move forward to promote physical therapists as the exercise experts for optimal health.*

There was a time, not too long ago, when Physicians practiced medicine, athletic trainers worked in training rooms and on athletic fields, fitness clubs cared about exercise and chiropractors only performed manipulations. At the same time, Physical Therapists carved out a niche of business for rehabilitation and became a valued partner in the care of patients. However, as we rested in our success as the proven experts in using exercise as a medical practice, other professions have taken note in the opportunity that exists and are beginning to infringe upon our area of expertise.

### PIECES OF OUR PIE

Despite our best effort in defending against Physician Owned Physical Therapy Practices, it is not difficult to find a Medical Group that employs an Athletic Training staff to supply their surgical schedule with high school athletes. Upon completion of surgery, the athlete can rehabilitate in the Physician Owned Physical Therapy Practice; then, following the latest trend in larger practices, they can continue their post rehab exercise in the Physician owned fitness club. OAA Orthopaedics (oaaortho.com) is one such example.

It's not only traditional medical practices but also the world of chiropractic care that is beginning to cross the line into rehabilitation. In many areas of the country "Spinal Decompression" is the new catch phrase in Chiropractic care. Using their well established marketing expertise, they are charging patients an extraordinary amount of out of pocket money for this latest greatest treatment for spinal nerve compression. However, what they have hidden from the public is the fact that this treatment is covered under most health plans when the *traction* is provided by the Physical Therapist. If

that isn't enough to make our profession sit up and start paying attention to other professional trends, then maybe the fact that Chiropractors are now selling the idea of "Progressive Rehabilitation" will make us take notice. Chiropractors are now employing staff members to introduce patients to spinal stabilization exercise and then have the patient become part of their in house fitness club. Consider the fact that one particular chiropractic franchise, *HealthSource* (healthsourcechiro.com), has sold 109 franchises in 12 months.

If we need more evidence that our profession may be missing the ball, consider that it is the fitness industry not the Physical Therapists who have partnered with the *American Medical Association* (AMA) and the *American College of Sports Medicine* (ACSM) to move the idea of "**Exercise as Medicine**" forward. Currently, a group of physicians associated with the Harvard Medical School and Spaulding Hospital in Boston and supported by the *AMA* and *ACSM*, have begun to promote the idea of "*exercise prescriptions*." These physicians, Steven Jones, MD and Edward Phillips, MD have recently published a book called **Exercise Is Medicine**. In this book they make a very convincing argument as to why the Physician community should participate in writing prescriptions and referring patients for exercise and the need for the Medical Doctor to consider the patient's activity level as a "vital sign" much like the patient's weight, blood pressure and BMI score.

In the past year, the International Health Racquet and Sportsclub Association (IHRSA) had articles directly related to, or referenced "*Exercise as Medicine*" in 12 of their monthly journals. Historically, the Fitness Industry, has proven to be very successful at selling their products and services; as 18 billion dollars in sales in the US alone indicates. However, they remain frustrated by the fact that the dollar figure is generated by only 15% of the population which leads them to question how to capture the other 85% of the community. Since studies indicated that intimidation is a major deterrent to Americans joining fitness clubs, they are wise enough to recognize that a doctor's prescription may just be the thing that gets them through the door. In order to gain credibility

within the medical community the Fitness Industry and their leadership is addressing the current lack of standardization within their industry. They are now taking a proactive approach to this current lack of standardization, by encouraging fitness clubs to voluntarily accept a minimum set of standards and guidelines with respect to staff accreditation and club policies. We as Physical Therapists must consider that the Fitness Industry's next move may be to address third party payers to pay for services related to *exercise prescriptions* and what the ramifications of that will be on our own profession. In reality, there may come a time when your favorite referring Family Practitioner writes a prescription for exercise and tells the patient to go down to the community fitness club, bypassing the Physical Therapy office. Since the typical Fitness Club tends to be in the business of sales not health, the unfortunate patient will enter an arena where patient care is not the motivating factor and true expertise is absent. They will be subjected to an environment and staff that supports the idea of "up-selling" for personal training assistance and unproven products, all of which are rewarded by commission sales.

The idea of using exercise as an extension of patient care continues to expand in realms outside of the Physical Therapy profession. Currently many Hospital Networks are beginning to add fitness club components to their available services. Within the National Hospital Association there is a subgroup, called the Medical Fitness Association (MFA.org) that is growing every year with a current enrollment of over 1000 fitness clubs. Some of these facilities can be found right in the hospital building and many others are found in medical office buildings that give the appearance of medical services wholly integrating their programs into one perfect health and fitness facility. However the truth is many of these facilities, though physically in one place, have no integration of services and programs. The Physical Therapy Department may have no contact with the care of an obese, hypertensive, diabetic, cancer survivor or COPD member of their Hospital's fitness club. The reality that all of these medically compromised or physically dysfunctional members of our communities would benefit from exercise and

movement is upon us. The new “Branding” campaign introduced by the APTA supports this. These people are screaming for a professional body of experts to synthesize their knowledge and expertise to provide sound scientific, evidence-based exercise programs. Imagine if the Specialty Sections of the APTA got together and coordinated exercise programs and protocols for Physical Therapy Owned Fitness Clubs. It makes perfect sense that a COPD club member could follow an exercise regime that was developed by Physical Therapists from the Cardiopulmonary Section, Orthopaedic Section, and Sports Medicine Section.

### OUR OPPORTUNITY

It is time for us to recognize that we are being pushed aside as other professions and industries infringe upon our expertise and take away opportunity for our growth. From small, on site private practices to multiple site, larger Corporate Private Practice Groups we can develop programs which follow an outpatient critical care pathway to accommodate the fitness component necessary to offer a safe effective program for the management of disease. Diabetics, Hypertensive, Obese, Cancer Survivors, and COPD patients need medical/exercise experts to provide them appropriate fitness options. Today all private practices should be receiving exercise prescription referrals for medically compromised patients from their current referral base

and receive third party payments for the service.

These patients, once introduced to exercise in a safe professional manner, will become confident and independent in their exercise program and often will become lifelong members at the facility that helped them overcome the initial hesitation to fitness. Many Private Practices can establish fitness programs within their own space for utilization by a paying membership base by initializing exercise programs and progressing patients appropriately. It is not necessary to build a large fitness facility immediately; it is completely realistic to simply use existing space with the addition of some cardio equipment. The idea is to have private practices begin small and increase programs and services as the growing membership indicate.

### CALL TO ARMS

It is evident that there is a movement toward exercise as an important component of any lifestyle. Even the most sedentary person will find enormous benefits from simply adding a small amount of exercise to their day. As a profession we are the experts at providing exercise and the most logical profession to receive and fulfill exercise prescriptions. We are an industry that has successfully integrated ourselves into the referral process within the medical community. In many respects, a referral from one professional to another profession, is recognition that there is a level of expertise by a particular profession

to perform the appropriate service. This is not a debate as to whether “practice without referral” is where the Physical Therapy Profession needs to evolve. This is a **call to arms** to the Physical Therapy Profession for our continued existence. We have long established relationships with the medical community that we can now use to our advantage in garnishing the *Exercise Prescription*. We are the most capable profession to integrate the medical condition of referred patients into an appropriately designed fitness program. We are a Profession that has learned and understands how to progress patients with challenging exercise programs. We are a profession that has successfully earned the respect of third party payers and when health insurance becomes more and more driven by patient choices, **we** need to be the profession of choice to assist in improving and maintaining the health of our communities. It is time that we, as a group, begin to lead this movement in *Exercise Prescription* and the concept of “Exercise is Medicine.” If we don’t, it will be our own fault that patients are choosing fitness clubs and chiropractor franchises to spend their fitness dollars. So the question remains, Are We Sleeping?

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Russell A. Certo is the Owner/Director of Grand Island Physical Therapy PC and the Owner of the M.O.G. SM (medically oriented gym). [gimog.com](http://gimog.com).

Vincenette San Lorenzo is the Director of the M.O.G. SM (medically oriented gym).

### *Professionalism in Physical Therapy continued from page 18*

standards for practice, education, and research. The Principles also articulate guidelines for ethical business relationships, including the responsibility to seek just remuneration for services, provide accurate information to consumers, protect the public from incompetent and illegal acts, and respect the rights, knowledge, and skills of colleagues. Finally, the Code of Ethics states that physical therapists should endeavor to address the health needs of society.

As we move to a doctoring profession and strive for autonomous practice, I believe that the core value of accountability places responsibility on the physical therapist to adopt behaviors that positively influence patient relationships. At the level of patient/client management, this value obligates us to accept responsibility for exercising sound professional judgment, including the duty to make independent decisions about patient care based on

our knowledge, expertise, and scope of practice. At the level of business practice and management, this value directs us to assume responsibility for the obligations that come with the privilege of practicing physical therapy. Acceptance of professional accountability implies that the practitioner has a fiduciary responsibility to accurately represent the profession to patients and to the public. It implies that we articulate our scope of practice in a manner that is consistent with current practice standards as outlined in the *Guide to Physical Therapist Practice*. As we begin to practice under the privilege of Direct Access, it means that we accurately describe this mode of practice not only to our patients and the public, but also to those physicians who have supported our patient care by respecting our professional competence, and those health care delivery systems that have given us the opportunity to practice within ethical and

legal bounds. It means that we are driven by our responsibility to our patients and our profession, and not solely by financial incentives and competition to establish a patient/client base. It also means that we must avoid practices that compromise our duties toward our patients and our obligations to our profession, no matter how much pressure others exert to influence us to use our positions in a manner that is inconsistent with ethical patient and business practices. Finally, acceptance of accountability means that we accept responsibility for self-regulation and encourage behaviors that positively influence patient/client outcomes. This means that we recognize unethical and illegal acts which violate standards and compromise the core values adopted by the APTA. It also means that we have the moral courage to report those who engage in unethical and illegal acts.

# SPECIAL INTEREST GROUP UPDATE

Ellen Strunk, PT, MS, GCS, SIG Board Liaison

The following information is for Section SIG members to inform them about changes in the standing rules.

The standing rules for the Balance & Falls SIG, the Health Promotion & Wellness SIG, and the Bone Health SIG have each been changed to allow for: (1) a staggered terms of SIG chairs and (2) online elections for all SIG officers that will coincide with the Section of Geriatrics' Board of Directors elections in the fall every year.

(The full SIG standing rules can be found at <http://www.geriaticspst.org/>)

## The following changes will be made to the Balance & Falls Special Interest Group Standing Rules:

### Article IV: Organization

#### C. Election

1. Elections will be held once a year (electronically) and results announced during the business meeting at CSM. Effective with CSM 2009, election of the chair will be staggered with other SIG chair elections. As a result, the Chair elected in 2009 will serve a 1 year term. Beginning in 2010, each chair will serve a 3 year term, and all positions will be elected every three years (e.g. 2010, 2013, 2016, etc.). Elections during odd numbered years will include 1 Chair, and 2 Nominating Committee members. Elections during even numbered years will include Vice Chair, Secretary, and 1 Nominating Committee member.
2. Ballot and candidate information will be distributed by email, mail (with or separate from SoG ballots), or in the SIG newsletter or by hand at the SIG meeting.
3. Newly elected officers shall assume office effective the Monday after CSM

## The following changes will be made to the Health Promotion & Wellness Special Interest Group Standing Rules:

### Article IV: Organization

#### A. Officers

Officers: The HPW SIG will elect the following officers, each serving a 3 year term Terms are effective the Monday after CSM.

#### C. Election

1. Elections will be held once a year (electronically) and results announced during the business meeting at CSM. Effective with CSM 2009, election of the Chair will be staggered with other SIG chair elections. Beginning in 2012 all positions will be elected every three years (e.g. 2012, 2015, 2018, etc.).
2. Ballot and candidate will be distributed by email, mail (with or separate from SoG ballots), or in the SIG newsletter or by hand at the SIG meeting.
3. Newly elected officers shall assume office effective the Monday after the close of CSM.

## The following changes will be made to the Bone Health Special Interest Group Standing Rules:

\*Throughout the document, the abbreviation BHSIG will replace OSIG.

### Article I: Name & Purpose

#### A. The name of the special interest group

shall be the Bone Health Special Interest Group of the Section on Geriatrics. In these Standing Rules it will be referred to as the BHSIG.

- #### B. The purpose of the BHSIG
- shall be to provide a forum through which individuals having a common interest in physical therapy for people with or at risk of developing osteoporosis may meet and promote care/intervention through education, clinical practice and research.

### Article IV: Organization

#### C. Election

1. Elections will be held once a year (electronically) and results announced during the business meeting at CSM. Effective with CSM 2009, election of the Chair will be staggered with other SIG chair elections. As a result, the Chair elected in 2009 will serve a 2 year term. Beginning in 2011, each chair will serve a 3 year term, and all positions will be elected every three years (e.g. 2011, 2014, 2017, 2020, etc.). Elections during odd numbered years will include 1 Chair and 2 Nominating members. Elections during even numbered years will include Vice Chair, Secretary, and 1 Nominating Committee member.
2. Ballot and candidate will be distributed by e-mail, mail (with or separate from SoG ballots), or in the SIG newsletter or by hand at the SIG meeting.
3. Newly elected officers shall assume office effective the Monday after CSM.

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# POLICY TALK: IS IT OVER YET? "THOUGHTS ON CHANGE"

Ellen Strunk, PT, MS, GCS, Co-Chair Legislative & Reimbursement Committee

At the time I am writing this, it is 5 weeks into the college football season, the first day of fall has come and gone, and once again, I'm asking myself where the summer went. Summertime used to be a time of relaxation and taking it easy. Apparently CMS didn't get the memo again this year. They have promulgated a flurry of proposed rules, responses to comments, Recovery Audit Contractor FAQs, and final rules.

How will therapy cope? Like we always have...by putting the patient's needs first and foremost. Change comes and goes; what once was won't be for a while, and then it will be soon enough again. When we stay true to providing skilled physical therapy that results in functional change, then it is almost certain that "everything else" will fall into place.

This article will review what has happened with "everything else" this summer by summarizing some of the major changes in the CMS proposed & final rules. *(The following represents only a summary. For more complete information, follow the link provided to the actual rule itself or visits APTA's Web site at [www.apta.org](http://www.apta.org).)*

## **Inpatient Rehabilitation Facility (IRF) Prospective Payment System FINAL Rule for 2010**

- The new Fiscal Year begins January 1, 2010.
- A preadmission screening must be completed within 48 hours of admission to the IRF by a rehabilitation physician or IRF clinical staff designated by the rehabilitation physician.
- A preadmission screening can be performed more than 48 hours immediately preceding the IRF admission if an update is conducted by phone within 48 hrs of admission & documented in the record
- Defines rehabilitation physician
- Defines what should be included in the preadmission screening evaluation
- Defines what should be in the post-admission evaluation
- Eliminated the post-admission assessment
- Plan of care must be developed for each IRF admission by the end of the 4<sup>th</sup> day following the patient's admission to the IRF
- Therapy evaluations must be initiated

within 36 hours of admission

- Minimum expectation for therapy is 3 hours per day at least 5 days per week
- Interdisciplinary team meetings must occur at least once per week and the disciplines that must be present include: rehabilitation physician, registered nurse, social worker/case manager, licensed or certified therapist from each therapy discipline involved in treating the patient.
- Rehabilitation physician must conduct face-to-face visits with each IRF patient at least 3 days per week throughout the patient's stay
- CMS deferred coming up with group therapy standards at this time; may decide to do it another time
- Clarified that aides are authorized to perform support services, but aide services are not considered skilled services and would not meet the IRF intensity of therapy criterion
- Medicare Advantage Plans must have an IRF-PAI completed by the IRF for any patient admitted or discharged on or after October 1, 2009. They will begin to count towards the 60% threshold
- For more information go to: <http://edocket.access.gpo.gov/2009/pdf/E9-18616.pdf>

## **Skilled Nursing Facility Prospective Payment System FINAL Rule for 2010**

- SNFs will have reduced RUG payments by approximately 1.1% for FY 2010 (which begins October 1, 2009).
- SNFs will transition to RUG-IV on 10/1/2010.
- *The remaining changes outlined below will go into effect on 10/1/2010:*
- STRIVE project data suggested there was an increase in utilization of concurrent therapy in SNFs, and CMS thinks this has resulted in overpayment to the SNFs. Concurrent therapy is defined as the "practice of one professional therapist treating multiple patients at the same time while the patients are performing different activities." CMS has decided to limit concurrent therapy to two patients only as long as it is provided by a therapist or therapist assistant who is in line of sight supervision of the treatment. They will also require the minutes be tracked separately on the MDS 3.0. This will go into effect on 10/1/2010.

vision of the treatment. They will also require the minutes be tracked separately on the MDS 3.0. This will go into effect on 10/1/2010.

- The definition and cap on total minutes for group therapy remains unchanged, but the minutes of treatment provided in group therapy will have to be tracked separately beginning 10/1/2010.
- CMS is reordering the scoring system on the MDS 3.0 Section G: Physical Functioning. This will potentially change the ADL split category that patients are placed in since the points are spread out more.
- CMS will no longer allow nursing facilities to count services in P1a (suctioning, ventilator/respirator, tracheostomy, IV medications, transfusions) that were provided in the hospital & not in the SNF on the 5 day MDS.
- The RUG-IV system will increase the number of RUG categories from 53 to 66. The number and categories of Rehab RUGs will stay the same.
- RAPs (Resident Assessment Protocols) will be replaced by CAAs (Care Assessment Areas)
- Section T will be removed from the MDS 3.0. Therefore rehabilitation will not be able to "project" the level of therapy to be provided in the first 15 days and get paid at that higher level. Instead a rehabilitation category can only be achieved by reaching that level.
- In lieu of Section T, CMS will be creating a "Start of Therapy OMRA" which nursing home providers can complete if therapy providers are unable to complete 5 days of therapy within the first assessment period. It can also be completed when therapy is started between MDS observation periods. The Start of Therapy OMRA will be completely voluntary.
- For patients who are discharged on day 8 or earlier, the number of rehabilitation minutes provided over the length of stay will be averaged. If the average number of minutes is enough to qualify the patient into a RUG category, then the patient will be placed into a Rehab RUG. If:
  - Avg daily therapy minutes between 15-29, the patient will be



- assigned to an RL
- Avg daily therapy minutes between 30-64, the patient will be assigned to an RM
- Avg daily therapy minutes between 65-99, the patient will be assigned to an RH
- Avg daily therapy minutes between 100-143, the patient will be assigned to an RV
- Avg daily therapy minutes between 144+, the patient will be assigned to an RU
- CMS will also be creating an End of Therapy OMRA which will be a required assessment. It will take the place of the OMRA currently completed by providers once all therapies have discontinued. However, the time frame to complete it will be shortened from 8 - 10 days to 1-3 days after the last therapy has discontinued. Day 1 is the first day therapy would have "normally" been provided.
- For more information, go to: <http://edocket.access.gpo.gov/2009/pdf/E9-18662.pdf>.

#### **Home Health Care Prospective Payment System PROPOSED Rule for 2010**

- The Final Rule is expected to be released in late November 2009.
- All changes will go into effect on 1/1/2010.
- Proposed CY 2010 national standardized 60-day episode payment rate for episodes beginning and ending in CY 2010 would be \$2317.47.
- CMS estimates it would result in \$100 million in CY 2010 savings.
  - An average loss of .86% for home health agencies (HHAs) in CY 2010 vs. 2009.
- In the HH PPS 2008 rule, CMS concluded that an 11.75% increase in case-mix was a result of "case-mix creep" that could not be attributed to changes in HH patient characteristics; instead it most likely represented changes in coding behavior and efforts to abuse the system.
- However, in the 2010 proposed rule, CMS now estimates (based on analysis of data through 2007) that the nominal case-mix has further increased.
- CMS now estimates the nominal case-mix has grown by an estimated 13.56 % -- an additional 1.81 %.
- CMS proposed accounting for the residual increase in nominal case-mix in one year in the 2010 final rule.
- It's estimated this adjustment would result in a 6.89% reduction to the

national standardized 60-day episode payment rates and the NRS conversion factor for CY 2010. If this proposal is expected, the estimated national standardized 60-day episode payment rate would be \$2274.34.

- In this proposed rule, CMS expanded its outlier policy analysis. After recent analysis of CY 2007 and 2008 data, CMS concluded that a target of 2.5% in outlier payments to total HH PPS payments may be more appropriate than 5%.
- CMS also considered whether a broader policy was needed to address abuses in exceeding the outlier payments.
- CMS will continue to analyze overall national spending on outlier payments. CMS plans to suspend suspect agencies and if needed, will eliminate outlier payments entirely.
- HHAs are required to submit data appropriate for the measurement of health care quality. CMS proposes to continue to use submission of OASIS data and the quality measures that are publicly reported on Home Health Compare to meet the requirement. HHAs that meet the reporting requirements would be eligible for the full home health market basket 2.2% increase. HHAs that do not meet the reporting requirements would be subject to a 2% reduction to the home health market basket increase (eg, would only receive a 0.2% increase).
- While the OASIS -C is still going through OMB approval, CMS intends to start using OASIS-C on January 1, 2010.
- For more information, go to: <http://edocket.access.gpo.gov/2009/pdf/R9-18587.pdf>.

#### **Outpatient Services – PROPOSED Physician Fee Schedule Rule**

- The Final Rule is expected to be released in early November 2009.
- All changes will go into effect on 1/1/2010.
- CMS announces in the proposed rule the physician fee schedule update for 2010 is projected to be a negative 21.5%. For PT, there would be an offset of 10% due to practice expense changes. Therefore most PT practices will see an average reduction of 11% depending on CPT code. *Congressional action is necessary to stop this cut.*
- The dollar amount of the therapy cap is not included in this rule, but it is anticipated to be the 2009 rate

(\$1,840 for PT/SLP; \$1,840 for OT). The Exceptions process will no longer be in effect after December 31, 2009. *Congressional action is necessary to extend the exceptions process.*

- CMS proposed to continue the Physician Quality Reporting Initiative (PQRI). For 2010, health care professionals (including physical therapists) who successfully participate will receive a bonus payment equal to 2.0% of the estimated total allowed charges for all services billed in 2010.
- CMS will allow claims based reporting for individual measures or for Measures Groups.
- The final measures will be announced in the Physician fee schedule final rule.
- CMS has proposed a total of 168 measures for reporting in 2010, an increase of 15 measures from the number in 2009. Of the 168 measures, there are at least 10 available to physical therapists.
- CMS proposed to conduct another self-nomination process to add additional registries for submitting quality measures.
- CMS proposes cardiac rehabilitation service coverage under Medicare Part B beginning January 1, 2010. They define a cardiac rehabilitation program in the proposed rule.
- CMS proposes pulmonary rehabilitation service coverage under Medicare Part B beginning January 1, 2010. They define a pulmonary rehabilitation program in the proposed rule.
- CMS proposes to change the status indicator for Canalith repositioning (95992) from bundled (B) to invalid (I) which means physical therapists can continue to bill for this service under 97112 – neuromuscular re-education.
- CMS proposes to clarify the physician "stand in the shoes" provisions, but no provisions that specifically address self-referral for physical therapy services were proposed in this rule-making.
- For more information go to: <http://edocket.access.gpo.gov/2009/pdf/E9-15835.pdf>.

#### **REFERENCES**

1. As listed above. All accessed on October 4, 2009.
2. "Highlights of the 2010 Proposed Physician Fee schedule Rule." Accessed on the APTA Web site at [www.apta.org](http://www.apta.org) on October 5, 2009.

## COMBINED SECTION MEETING SEE YOU IN SAN DIEGO in FEBRUARY 2010

Jill Heitzman, PT, DPT, GSC, CWS, FACCWS  
SOG Conference Chair

After months of preparation, Combined Section Meeting (CSM) 2010 is approaching quickly. The events this year again provide ample opportunity to learn new clinical skills, develop professional contacts and socialize with friends from across the country. A look at some of the events will demonstrate that this is a meeting you won't want to miss.

The Section on Geriatrics will be offering preconferences that will be a strong beginning for the San Diego conference. For those who have ever thought about what a Geriatric Residency is or have questions about developing a residency, the Clinical Residency 101 course is for you. This course is also partnered with the Mentoring course on the second day of preconferences. The Mentoring course is not only for those developing residencies, but for any who need to mentor new employees, residents, or anyone else. Both courses can be taken individually, but if taken together, there is a discount.

Another preconference course on Wednesday is a Yoga course. This course will be lab based and focused on how yoga can help reduce the risk of falls.

The final preconference course is the third course in the Certified Exercise Expert for the Aging Adult. While this course is only open to those who have taken course 1 & 2, we want everyone to know about this series. We plan to offer course 3 at future CSM events, so if you are thinking about taking this series of courses, you can plan ahead for your course 3. Stop by the Section on Geriatrics booth in the Exhibit Hall for more information on this course series.

The CSM education sessions are always packed and this year will be no different. Clinical application and research presentations ranging from treating patients with cognitive impairments, health literacy issues, and working with patients with smoking issues, home adaptations, or gait/balance issues, the therapist in acute care, home health, outpatient or any other setting will find topics that can be immediately put into practice.

Highlights you won't want to miss include our annual welcoming and congratulatory breakfast offered on Thursday morning at 7 AM. This is a great time to find out more about the session and this year there will be a special presentation on the Aging Conference that will be held in Indianapolis in the summer 2010. The members' meeting and awards ceremony on Friday evening is a must for any Section member. This is the way members get involved and direct the Section for future planning. Recognizing our outstanding members is important---**DON'T FORGET TO NOMINATE YOUR PEERS!** (See the Section Web site for details.)

A new event this year is our multi special interest group session on Thursday at 12:30. Each SIG will be presenting what is happening within their field of interest and there will be roundtable discussions on future roles of the Section as well as individual SIG business meetings. Plan to attend this event where the Balance and Falls SIG, Health and Wellness SIG, Bone Health SIG, and Cultural Diversity Committee all join forces to improve successful aging.

As you can see, CSM 2010 offers a wide variety of activities. Mark your calendars NOW for CSM 2010- February 17-20, 2010. See you in San Diego!

## A Student Contest for PT and PTA Students: *Creating Patient Handouts*

PT and PTA students throughout the nation are creating consumer/client instructional materials. Brochures created over the past three years are available on our website, and are a valuable resource to the clients we serve.

Winning handouts will be displayed at the Section booth at APTA's 2010 Combined Sections Meeting. Authors will be recognized through the display, in *GeriNotes*, and on the Section's web site. The handouts will be available for clinicians to download and print for client care and instruction. For Contest Rules please see [www.geriaticspt.org](http://www.geriaticspt.org), Education, Students.

The Section on Geriatrics would  
like to invite all:

## Newly Certified GCS, Recertified GCS and First Time Attendee to the Annual GSC Breakfast!

The GCS Breakfast will be on Thursday,  
February 18, 2010 from 7am-8am!

All members are welcome to celebrate  
and welcome these new GCS and  
first time attendees to CSM.



# CSM 2010 SCHEDULE AT A GLANCE

## PRECONFERENCES:

### Tuesday:

Clinical Residency 101: Getting Started and Doing it Well  
Certified Exercise Expert for the Aging Adult Course 3

### Wednesday:

Residency/Fellowship Mentoring: Advancing the Resident and Developing the Faculty  
The Therapeutic Use of Yoga to Prevent falls and Reduce the Risk of Falling in Aging Adults  
Certified Exercise Expert for the Aging Adult Course 3

CSM Opens with the ABPTS Opening Ceremonies at 7PM

### Thursday:

#### 7:00 AM GCS/Newcomer breakfast

8:00 AM Multisection opening session on Managing Concussion Through the Lifespan  
10:30-1:30 Providing Effective PT for Older Pts w/ Delirium, Dementia or Depression: Moving Beyond "Tx Held, Pt Confused" By W Healey, N Francis, G Huber  
12:30-2:30 Get Well/Stay Well: A Look at what the SIGs are Doing within the SOG and Internationally, Presentation and Round table Discussions  
2:30-4:30 Health Literacy and the Older Adult: Implications for Practice by T Pearce, D Clark

Exhibit Hall opens 4:30-6:30

7:00 PM BPPV by J Helminski  
7:00 Board of Directors Meeting #1

Cosponsor events:

10:30-12:30 Expanding Our Universe: Health Promotion Opportunities in PT-HPA Section lead  
2:30-4:30 Balance at a High Level; Vestibular Training for Patients w/ Amputation-Fed Affairs lead

### Friday:

8:00-11:00 LBP in Older Adults: Special Considerations and Understanding Can Lead to Improve Function by T Manal, G Hicks, M Sions, T Velasco  
8:00-11:00 Platform Sessions  
11:00-1:00 Exhibit Hall

1:00-3:30 Student Forum: A Case Study Look through the Various Practice Settings  
3:30-5:00 Bringing Power to Resistance Training for Older Adults by M Puthoff  
1:00-4:30 Aging In Place: Building for the Future by P Antony, J Wooten, S Gross, J Heitzman

Cosponsor events:

8:00-11:00  
1)Pt/Client Centered Assessment to Improve Clinical Outcomes-HPA lead  
2)Potential Effects of Diabetes Mellitus on the UE—Hand lead  
3)New Graduate Mentoring & Making Geriatric House Calls—Education lead

**5:00-9:00 Members Meeting and Awards Celebration**

### Saturday:

8:00-11:00 Quitters are Winners: Implications for PT Practice by P Ohtake, D Frownfelter  
8:00-11:00 Platform Session #2

11:00-1:00 Exhibit hall

1:00-5:00 Assessing Walking Speed in Everyday Clinical Practice: A "Vital Sign" for Function By P Duncan, M Lusardi, S Fritz, K chui, J Stevens, K Wing, E Hillegass, J Purser

Cosponsor events

8:00-11:00 Functional E stim for Persons with Neurological Gait Dysfunction: Neuro lead  
1:00-5:00  
1) PT in HH Wound Care Team-HH lead  
2) How do Foot Orthotics and Bracing Really Work?— Research lead  
3) Acute Care: PT Role in Pressure Ulcer Prevention: Acute Care lead

5:00-6:00 Eugene Michels Forum

7:00-9:00 Board of Directors Meeting #2

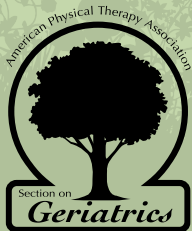


PHYSICAL THERAPY  
UNIVERSITY OF MINNESOTA

## Clinical Residency in Geriatric Physical Therapy

The University of Minnesota Program in Physical Therapy is seeking applications for a new Geriatric Clinical Residency beginning September 2010. This 12 month program will provide residents extensive didactic education, clinical practice, and individual mentoring in the area of geriatric physical therapy and issues related to aging. Clinical Faculty are geriatric experts in a number of disciplines. New graduates and experienced clinicians are encouraged to apply. Resident graduates will be prepared to sit for the GCS exam. Residents will earn a salary with benefits, and pay minimal tuition. For an application or further information, please contact Residency Director, Becky Olson-Kellogg, PT, DPT, GCS at 612-624-6591 or [olson0184@umn.edu](mailto:olson0184@umn.edu)  
**Applications due March 31, 2010.**





## CSM 2010 Preconference Course: Section on Geriatrics

Members of the Section on Geriatrics register at a discount.

### The Therapeutic Use of Yoga to Prevent Falls and Reduce the Risk of Falling in Older Adults

Wednesday, February 17, 2010, 8:00 am–5:00 pm

7.5 Contact Hours

**Presenter:** Kathleen K. Zettergren, PT, EdD

Yoga has previously been shown to improve cardio-respiratory function and reduce anxiety, depression, stress, and low back pain. Having optimistic beliefs and positive attitudes enhances the mental health of older adults even in the presence of physical decline. Yoga represents one of the top 10 most commonly used alternative therapies and is often available to community-dwelling older adults. Physical therapists are uniquely qualified to provide therapeutic yoga to older adults in a safe, effective manner. This course will enable the physical therapists to use the literature related to fall prevention, balance, and strengthening in older adults to design yoga programs to target the specific bodily functions in older adults that contribute to falls.

**Note:** Participants will actively participate in yoga moves.

*Upon completion of this course, you will be able to:*

- Define yoga and describe the most popular forms of yoga taught in the United States
- Utilize current research in developing programs in therapeutic yoga
- Define falls and describe current falls statistics
- Identify common musculoskeletal contributions to falls in older adults
- Perform several basic yoga postures and discuss how these postures may prevent and/or reduce common ailments as described in current literature
- Describe and demonstrate modifications of yoga postures for the older adult
- Describe and perform an introductory yoga class designed to target balance, falls, and fall prevention

*Course space is limited—Visit [www.apta.org](http://www.apta.org) and click events to register today!*



## PARTNERING FOR SUCCESS

Kerri Bednarcik, PT

The Section on Geriatrics has recently implemented the Section on Geriatrics-APTA Partners Program. This program will support the ongoing mission to provide best practice physical therapy and to advocate for optimal aging.

The Partners Program was developed to acknowledge individuals who are not eligible for APTA membership, but who contribute to the development of the profession and the provision of care and services to maximize optimal aging. As a Partners Program member, these individuals would receive the following benefits:

- Electronic access to the *Journal of Geriatric Physical Therapy*
- Electronic access to *GeriNotes*
- Membership in the Section on Geriatrics listserv
- Discounts on tuition for Section sponsored regional courses and preconference courses at APTA meetings

- Discounts on all Section products
- **Free** membership in three Special Interest Groups
- **Free** access to electronic consumer powerpoints

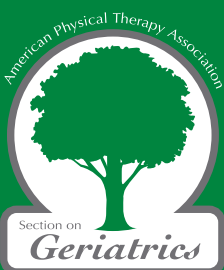
Individuals eligible for this program include international physical therapy professionals, rehabilitation providers (physicians, occupational therapists, speech pathologists, respiratory therapists), faculty teaching in physical therapy education programs, or others who can demonstrate an identified connection with the profession.

If you know of someone who would be interested in becoming a member of this program, please ask them to contact the Section on Geriatrics office at 800/992-9711, ext. 3238 or via e-mail at [geriatrics@apta.org](mailto:geriatrics@apta.org).



# Exercise and Physical Activity in Aging Conference:

Blending Research and Practice



APTA's Section on Geriatrics presents

## Exercise and Physical Activity in Aging Conference (ExPAAC)

Date: July 29-31, 2010

University of Indianapolis  
Indianapolis, Indiana

If you can attend only one conference in 2010, make it ExPAAC.

ExPAAC will be THE gathering of physical therapy professionals who want to be on the cutting edge of geriatric physical therapy research, education, and clinical practice. Join us for 3 dynamic days of presentations by and discussions with national and international experts. **Visit our Web site, [www.expaac.org](http://www.expaac.org), for all the details.**

Electronic submissions for poster presentations will be open December 1, 2009 through January 22, 2010 (with notification by March 1, 2010).

A 1-day preconference geriatric review course will be held July 28, 2010. See [www.expaac.org](http://www.expaac.org) for more details.



American Physical Therapy Association

## CSM 2010 Preconference Courses: Section on Geriatrics

Register for either course, or register for both and receive a discount.

*Course space is limited—Visit [www.apta.org](http://www.apta.org) and click events to register today!*

### Clinical Residency 101:

#### Getting Started and Doing It Well

Tuesday, February 16, 2010, 8:00 am–5:00 pm

7.5 Contact Hours

**Presenters:** Greg W. Hartley, PT, MS, GCS, Teresa L. Schuemann, PT, DPT SCS, ATC, CSCS, Kim Nixon-Cave, PT, PhD, PCS

This workshop is ideal for individuals and organizations interested in developing a credentialed clinical residency. Learn about the process from individuals who have guided their clinical residency through a successful credentialing outcome and from representatives of APTA's Committee on Residency Credentialing. Innovative ways to address the credentialing criteria will be explored to make a clinical residency fit your unique situation.

#### *Upon completion of this course, you will be able to:*

- Justify the rationale for a clinical residency that includes a discussion of the benefits and challenges
- Assemble the necessary resources for the development of a clinical residency, including the development of unique partnerships
- Market a clinical residency to administration and to potential residents
- Formulate a budget and establish cost effectiveness of a clinical residency
- Prepare an application for the credentialing process

### Mentoring the Clinician Towards Advanced Practice: Skills, Knowledge, and Behaviors for Successful Residency and Fellowship Mentoring

Wednesday, February 17, 2010, 8:00 am–5:00 pm

7.5 Contact Hours

**Presenters:** Carol Jo Tichenor, PT, Ivan Matsui, PT, FAAOMP, Gail M. Jensen, PT, PhD, Cathy H. Ciolek, PT, DPT, GCS

Professional competence goes well beyond technical skills. Competence builds on a foundation of basic clinical skills, scientific and clinical knowledge, clinical and practical-reasoning skills, and moral development. Mentorship is a critical element in the “formation” of a professional. This course will provide the participants with in-depth instruction in the educational structure

and skill development necessary for residency and fellowship clinical mentoring. The session will include opportunities for application and discussion of these skills through authentic, interactive problem-solving situations.

This 8-hour course is directed toward academic and clinical educators who are currently teaching or considering developing residency and/or fellowship programs. The course is designed to guide individuals in how to design, implement, and evaluate mentoring experiences in postgraduate residencies and fellowships. Topics will include: characteristics of a good mentor and how mentoring differs from traditional teaching, how to structure productive mentoring sessions to facilitate clinical reasoning and decision making, strategies for mentoring the challenging resident, planning remediation sessions, methods for facilitating communication between faculty members and between faculty and residents, and assessment of the effectiveness of the mentoring experiences. Participants will also learn strategies and be introduced to tools that are part of the professional development learning continuum for physical therapists as they progress towards advance practice through residency, clinical specialization, and beyond.

#### *Upon completion of this course, you will be able to:*

- Compare and contrast the characteristics of a good mentor and relate to personal clinical teaching experience
- Structure and analyze mentoring experiences that build on the core components of reflective thinking and sound clinical reasoning principles
- Develop strategies for addressing common mentoring challenges in the residency and fellowship program learning environment
- Guide the resident in a critical self-reflective process that includes identifying targeted learning strategies for improving performance
- Design activities for developing and evaluating a mentoring program for new faculty members



*Cosponsored by APTA's Section on Women's Health. Members of the Section on Geriatrics and all cosponsoring sections register at a discount.*



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**Section Executive**  
Andrea Saevoon  
Section on Geriatrics  
1111 North Fairfax  
Alexandria, VA 22314  
W 800/999-2782 ext. 3238  
FAX 703/706-8575  
andreasaevoon@apta.org

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Sharon Klinski  
2920 East Avenue South, Ste 200  
La Crosse, WI 54601-7202  
W 800/444-3982 x 202  
FAX 608/788-3965  
sklinski@orthoht.org

Years wrinkle the skin,

but to give up enthusiasm wrinkles the soul.

- Douglas MacArthur

Section on Geriatrics - APTA

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