GERINOTES

SECTION ON GERIATRICS, AMERICAN PHYSICAL THERAPY ASSOCIATION

IN THIS ISSUE

ARTICLES

JANUARY 2009 VOL. 16, NO. 1

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Publication Title: *GeriNotes*

Statement of Frequency: Bi-monthly; January, March, May, July, September, and November

Authorized Organization's Name and Address: Orthopaedic Section, APTA, Inc.
For Section on Geriatrics, 2920 East Avenue South, Suite 200, La Crosse, WI 54601-7202

Newsletter Deadlines: January 28, March 28, May 28, July 28, September 28, November 28

PRESIDENT'S PERSPECTIVE: CARING FOR OUR MEMBERS ACROSS THE AGES

John O. Barr, PT, PhD

I wanted to take this opportunity to call your attention to a couple of issues affecting individuals at the age extremes of Section membership, our youngest student members and our most senior "Prime Timers."

Based upon a proposal submitted by our Section and the Section on Pediatrics, at its November meeting, the APTA Board of Directors approved expanding the PTA Recognition Program to include geriatrics and pediatrics. Physical therapist assistants (PTAs) will now be able to pursue recognition of advanced proficiency in these areas, in addition to the program's categories of musculoskeletal, neuromuscular, cardiovascular/pulmonary, and integumentary physical therapy. Although the 4 original categories match existing core areas of the Guide to Physical Therapist Practice, geriatrics and pediatrics cover multiple practice patterns, which require distinct skill sets for the PTA. Our affiliate members are strongly encouraged to achieve this recognition in geriatrics.

Given the recessionary status of our economy and the credit crunch, student loan debt and the rising costs of higher education have been recurrent themes discussed on the Education Section's listserv beginning in early December. Many strategies to address these issues will be discussed at state and federal levels in coming months. Unfortunately, when Congress reauthorized the National Health Service Corps Loan Repayment Program late in the fall, with only modest funding increases, it failed to add physical therapists (or three other professions seeking inclusion: chiropractors, optometrists, and pharmacists). Student and active members are strongly encouraged to use APTA's on-line Legislative Action Center in continuing to promote the bill sponsored by Arkansas Congressman Berry, H.R.1134, titled: "To amend the Public Health Service Act to provide for the participation of physical therapists in the National Health Service Corps Loan Repayment Program;" the related Senate bill was S.2485. This bill, which had 145 House and 11 Senate co-sponsors, will be reintroduced in the next session of Congress. Your involvement with this matter is important to our student physical therapist members and those who have graduated with very substantial student loan debt.

Since becoming President in 2006, I've been engaged in an ongoing discussion with leaders of the Prime Timers (PTers) about an optimal organizational structure and relationship with the Section on Geriatrics. This "special interest group" of senior physical therapists was founded in 1987, with primary objectives: to utilize their professional knowledge and experience for the benefit of all members; and to provide opportunities for fun and social interchange among Prime Timers. At their height, the Prime Timers had nearly 300 members; current group size is 160, including both Section and non-Section members. Group activities include: an information/publicity booth at the Annual Conference and the Combined Sections Meeting for which volunteers are always needed; luncheons and day trips during conferences; and a newsletter that permits sharing of information about professional matters, life adventures, and member deaths. The PTers current Steering Committee is comprised of President, Pat McAdoo; Secretary, Bette Horstman; and Treasurer, Rose Sgarlat Myers. Committee chairs include Clara Bright (Newsletter), Pat Traynor (Activities), and Evelyn Hallas (Special Attention/Photography). The group has standing rules and procedures, but no formal bylaws. Since the PTers are funded by member donations, not dues, it is critically important to control expenses (eg, printing/mailing of the newsletter). Currently about 50% of PTers receive the newsletter electronically. The PTers have recently been working with the Foundation for Physical Therapy on a plan to post their newsletter on the Foundation's website. Given the fact that there should be a basis for more common alignments between our Section and the Prime Timers, I plan to include this as an agenda item at both the Board of Directors and Members Meetings at the Combined Sections Meeting in Las Vegas. While some of us over the years may have been "Not Ready for Primetime Players"….it really is time to achieve a meaningful formal relationship with these senior physical therapy leaders.

Sincere best wishes for a productive New Year!

John O. Barr, PT, PhD
President – Section on Geriatrics

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: GET YOUR CEUs WHILE THEY LAST

Carol Schunk, PT, PsyD

As I mentioned in my Editors Message, the November issue was a new concept. To meet the needs of the members, the issue contained a Continuing Education Module that is an easy and inexpensive way for readers to obtain 4 hours (.4 CEUs) of continuing education credit. The topic was Cardiovascular and Pulmonary with Guest Editor, Jennifer Ryan. Included in the module were 5 outstanding articles. All you have to do is read the articles, take the post test, complete the Unit Evaluation form and send it in with the application and fee to the Section. Many have already completed the module and will receive their certificates in late January.

My purpose here is to nudge those of you who have the CEU module on their list of things to do. To facilitate the process we have included the post test, CE Unit Evaluation, and Submission forms in this January issue. They can be found on pages 7 and 8. I know the November issue with the articles is in the pile on your desk, so dig it out and start reading. Earn CEU credits in the comfort of your own home!!! Deadline is March 1, 2009.

My father recently went on Hospice. Even though I work in Hospice, my father is most reluctant to listen to anything I might suggest from using a walker to installing grab bars. The Hospice team has the credibility with him that I lack and therefore is such an asset to all involved. The concern of me and my brothers is obviously for my father but also for my stepmother who is primary caregiver. We try not to step on toes while attempting to offer help, a definite balancing act. As physical therapists working with older adults, especially in home health, care for the patient is often in tandem with care for the caregiver. Bill Staple's article in this issue on Caregiver Stress is so timely. I read it with my family in mind and gave copies to the social workers in my home health agency as a reference.

Combined Section Meeting (CSM) 2009 is coming up in February. Section Conference Chair, Jill Heitzman and her committee have come up with another excellent program. Details are in this issue along with description of the 3 pre-conference courses. Just as maintaining your professional development through the *GeriNotes* CE module (nudge) or attending CSM is important, so is sharing information with others. Jim Smith and Molly Crist are authors of the article in this issue that explains the process of presenting at a professional conference. They do an outstanding job of walking you through the ins and outs of getting started. I remember the first time I submitted a proposal for Annual Conference so many years ago. If I had the opportunity to read their article, I probably would not have been rejected! Take the plunge and share all that great clinical information with others. You can do it!

Wanted! Articles for GeriNotes

Topics:	Anything related to older adults
Clinicians:	Send me an article or idea
Student At Any Level:	Send me papers you wrote for class
Educators:	Send me student papers

Everyone LOVES to PUBLISH, And it is EASY!

Contact: **CAROL SCHUNK, GERINOTES EDITOR**
carolschunk@earthlink.net

CONTINUING EDUCATION MODULE
NOVEMBER ISSUE OF GERINOTES
CARDIOVASCULAR AND PULMONARY
HOW TO SUBMIT CEUs

To obtain CEUs for this continuing education module, after reading the module articles in the November 2008 issue of *GeriNotes* participants must complete the post-test on page 7, as well as the evaluation form on page 8. A processing fee of $15.00 for SOG members and $30.00 for nonmembers is required. To apply for CEUs send the post-test and the evaluation form to the Section on Geriatrics along with payment. Applications must be postmarked no later than March 1, 2009. Upon submission of materials and a passing score of 80% or higher on the post-test the Section will mail you a continuing education certificate for **.4** CEUs. Those with incomplete submissions will be notified via e-mail.

CERTIFIED EXERCISE EXPERT FOR AGING ADULTS (CEEAA)

The evidence for the benefits of an effective exercise program for the full spectrum of aging adults is overwhelming and the unique role of the physical therapist (PT) is unequivocal. Additional and intensive education is needed for PTs to incorporate evidence into practice in order to appropriately examine and to provide the quality of exercise that will provide optimal benefits for the aging adult. The Section on Geriatrics, in adopting the position that physical therapists should be THE exercise experts for aging adults, will be a leader in providing physical therapists with a mechanism to develop and demonstrate expertise in the design and delivery of effective exercise programs for aging adults.

Exercise Certification Series Course 1: Introduction and Examination (Tests and Measures)

Exercise Certification Series Course 2: Exercise Prescription, Consensus Guidelines

Exercise Certification Series Course 3: Special Populations, Complementary Exercises, Motivation, Drug and Nutritional Considerations, Marketing

All PTs with the CEEAA credential will demonstrate expert clinical decision-making and skill in designing and applying an effective examination and exercise prescription and in measuring the effectiveness of exercise for all aging adults reflecting current evidence. The process to attain the credential of "Certified Exercise Expert for Aging Adults" is to complete a formal didactic education, supervised and mentored skills development, and home-based reflection and critical thinking. Three courses of 2 days each will address 3 different and increasingly complex aspects of exercise design and delivery. The 3 courses are designed to build on each other; however Courses 1 and 2 can be taken out of sequence.

There will be a home-based examination for Courses 1 and 2. A skills test for the content of the first 2 courses will be preformed on-site during Course 3. Following completion of all 3 courses, there will be a final, comprehensive, home-based examination. All home-based assessments must be completed within 6 weeks of taking the related course. A participant must achieve minimum criteria in both the skills and didactic assessments to progress to the next level. However, a person can elect to take a course without being tested.

The Upcoming Course Dates are:

MONTGOMERY, ALABAMA:
Course 1: March 28-29, 2009
Course 2: August 29-30, 2009
Course 3: October 17-18, 2009

SAN DIEGO, CA:
Course 1: July 18-19, 2009
Course 2: December 12-13, 2009
Course 3: CSM 2010

BOSTON, MASSACHUSETTS:
Course 1: Location and Dates in 2009 TBD
Course 2: Location and Dates in 2010 TBD
Course 3: Annual Conference 2010

For More Information Please Visit:
http://www.geriatricspt.org/
or contact the Section Office at:
geriatrics@apta.org

Continuing Education Module

THE FOUNDING OF THE SECTION ON GERIATRICS

Joan M. Mills, Founding Chair of the Section on Geriatrics

It is now 2008 and I read in the last *GeriNotes* that the Section has been a part of the APTA for 30 years. My dictionary tells me that the meaning of founding is 'to bring into being' so thought perhaps some of you would be interested in the story of how the Section 'came into being' as I remember it.

In 1969 I accepted a job as the first full time Physical Therapist at Jackson County Hospital. Jackson County Hospital was originally a County Poor Farm. Harry Truman, a County Judge, was responsible for having an acute hospital added to this facility. It was managed by political appointees until 1965 when the first professional administrator was hired and he wanted to improve the hospital, especially patient care. He was very determined to hire a Physical Therapist and as I later learned he was the only person in the facility that understood how our profession could benefit those patients. The hospital included 60 acute care beds, outpatient care, and a 200 bed long-term care section. I must admit I wasn't sure I wanted to work with all those old people but the location was very near my home (no more driving in traffic).

The Long Term Care Section had a high percentage of older persons with many conditions I had never seen before. When I went to the literature I could not find any help for treatment of that age group. Patient care was very inadequate and I could not find resources to guide me. Since then, many of you have helped to make that world different. Back then, I was determined to find a way to make this situation better before I was a patient in a care center. At that time, there was only one physician for all 200 patients. He only saw patients once a week for 2 hours. When I asked him for a prescription for treatment he said, 'we just give them Thorazin--zonk them out and make them happy. You need to spend your time on the acute patients. I was extremely upset and challenged by this attitude.

In the early 70s I was a delegate to the APTA House of Delegates. A comment was made by the Chief Delegate, Bob Hickock, PT that no one knew Missouri existed. For visibility, we needed to find an issue for a resolution or something. As I thought about this and my dilemma at work, I wondered if trying to form a Section was a good idea. I called Bob and asked him what he thought. Bob urged me to go ahead with the idea and gave me directions on how to proceed.

I asked some PT friends here in Kansas City to meet with me and discuss the idea further. They were very encouraging and helped me to draw up some goals etc. for the new Section on Long Term Care. The minutes from that meeting are in the Missouri Physical Therapy Association archives.

The guidelines for forming a new section at that time were pretty simple. All I can remember needing to do was get a petition signed and approved by the APTA Board of Directors and the House of Delegates. A minimal number of signatures were required on the petition, maybe like 50. I found it easy to get the signatures at local and state PT meetings.

The APTA Board of Directors, however, did not approve the petition and I was pretty disappointed. Bob Richardson (then President of APTA) met with me at the next annual meeting of APTA and explained the Board's reasoning and helped me to understand their decision; he was very kind. The Board felt that the proposed patient population was too broad and I should narrow it down to one patient population. Of course, they were correct.

"I needed to start over."

The guidelines had now been changed. An increased number of signatures were required on the petition, signatures needed to be from more than one state (don't remember how many states), and bylaws were written. I wrote the bylaws with the help of Bill Dunn, PT from North Kansas City. He was a member of the APTA Bylaw Committee at the time. Several people helped me secure the signatures and that was easily accomplished.

In 1978 the Board of APTA approved the petition and at the Annual Conference that same year the Section on Geriatrics was approved. The following day several therapists met with me to form a Board of Directors and make plans for the future. I will not attempt to name those wonderful people for I may forget someone. Many are still a part of the Section.

In the fall of 1978, we held a Board meeting at my home; most of the Board attended and at their own expense. Again, I will not attempt to name them but I did take a picture and minutes of this meeting were taken. These have been sent to the APTA archives. And you know 'the rest of the story.'

Joan Mills graduated with a BS in Physical Therapy from University of Kansas in 1950 with additional Graduate work in Geriatrics at University of Missouri-Kansas City. She served as the Director of Rehab Services at Truman Medical Center-East prior to retiring in 1991. The highest SOG award is named in her honor for service to the Section.

CARDIOVASCULAR AND PULMONARY CONTINUING EDUCATION UNIT POST TEST

INSTRUCTIONS : **To obtain CEUs for this continuing education unit, participants must read the articles (November 08' *GeriNotes)* and complete the post test as well as the evaluation form on the back of this page. See specific instructions for submission of the completed post test on next page. PLEASE CIRCLE THE CORRECT ANSWER FOR EACH QUESTION.**

1. Resistance training is appropriate for a patient with heart failure:

a. when the patient has auscultory findings of an S3 heart sound.
b. at an intensity that elicits an RPE of 15.
c. when they maintain a stable body weight.
d. because it causes ventricular remodeling.

2. Patients with compensated heart failure:

a. can tolerate vigorous physical activity.
b. have an increase in fluid volume.
c. often have signs or symptoms of fluid overload.
d. do not have changes in the renin-angiotensin -aldosterone system.

3. A goal of any antihypertensive medication is to:

a. reduce the myocardial oxygen demand and increase the supply.
b. increase the oxygen supply to the peripheral tissues.
c. reduce the myocardial tone and rate.
d. facilitate peripheral vasodilation.

4. The antihypertensive drug class that offers persons with hypertension the best protection from the risk of stroke or myocardial infarction is?

a. ACE inhibitors. b. diuretics.
c. beta blockers. d. angiotensin II receptor blockers.

5. You see a 75-year-old patient with a history of atherosclerosis, angina, and heart failure for exercise testing and prescription to improve endurance and strengthening. Your examination reveals the following results:

Observation: jugular venous distension and LE edema (+2)
Respiratory: no apparent SOB or dyspnea at rest
Auscultory findings: S3 heart sound; No murmurs
Work capacity: 7 METS
O2 saturation: 96% at rest and 91% during ambulation

Your exercise prescription may include which of the following:

a. Cycling at 80-90% max heart rate.
b. 60 minutes minimum of activity including circuit training for resistance exercise.
c. high resistance free weights (80% 1RM).
d. circuit weight training exercise at RPE 10-12.

6. In prescribing an exercise program for a patient over 65 all of the following goals can be collectively addressed <u>except:</u>

a. flexibility. b. balance.
c. strengthening. d. endurance.

7. Cardiovascular system changes in older patients that lead to a diminished ability to respond to changes in activity intensity are:

a. diminished baroreceptor response to adapt to pressure changes with activity and gravity.
b. accelerated cardiac conduction system.
c. increased maximal cardiac output.
d. increased peripheral vascular tone with position change.

8. Functional assessments differ from traditional measures because:

a. they target specific behaviors.
b. they address tasks a patient wishes to accomplish.
c. they address all the signs and symptoms the patient is complaining of.
d. they are specific to certain conditions.
e. A & B
f. B & D

9. Which of the following findings are most consistent with cardiogenic causes of dyspnea?

a. productive cough.
b. low oxygen saturation.
c. EKG detection of sinus rhythm.
d. bibasilar crackles.

10. If SBP drops during activity (inotropic incompetence), which compensatory physiologic response would most likely occur in order to maintain CO?

a. an increase in SV. b. a decrease in HR.
c. a decrease in SV. d. an increase in HR.

11. Narrowing of the arteries occurs with aging and atherosclerosis can result in:

a. decrease resistance to blood flow.
b. increase resistance to blood flow.
c. no change in resistance to blood flow.
d. change in the direction of blood flow.

12. An increase in the anterior-posterior diameter of the ribcage occurs with aging due to:

a. muscle weakness and osteoporosis.
b. less chest wall resistance and a decrease in the work of breathing.
c. loss of spine height and rib cage mobility.
d. an increase in elasticity and an increase in compliance of lung tissue.

13. The most accurate method of calculating target heart rate for exercise prescription is:

a. using the maximum heart rate formula.
b. using the heart rate reserve method.
c. factoring 50% of max HR.
d. factoring 60-80% of heart rate reserve method.

CARDIOVASCULAR AND PULMONARY CE UNIT EVALUATION FORM

Please rate the following questions 1= strongly disagree 5= strongly agree

1.	The course material met the stated objectives	1	2	3	4	5
2.	The information will be useful in my practice	1	2	3	4	5
3.	The articles were well written and informative	1	2	3	4	5
4.	The authors were knowledgeable on this topic	1	2	3	4	5
5.	I am satisfied with this unit as a CE course	1	2	3	4	5
6.	I would like future CE courses in GeriNotes	1	2	3	4	5

Please offer any additional comments or suggestions for future topics below:

_____

_____

_____

_____

SUBMISSION FOR CONTINUING EDUCATION CREDITS

To obtain CEUs for these continuing education participants must complete the post test as well as the evaluation form on this page. Return page 7 and 8 with a processing fee of $15.00 for SOG members and $30.00 for non members. Submission must be postmarked no later than March 1, 2009. Upon submission of materials and a passing score of 80% or higher the Section will mail you a CEU certificate for .4 units. Those submitting incomplete material will be contacted via e-mail.

Name _____ **APTA Number** _____

Address _____

City _____ **State** _____ **Zip** _____

SOG member _____ **yes** _____ **no**

Professional designation ☐ **PT** ☐ **PTA**

E-Mail Address _____

Payment information ☐ **$15.00 for SOG members** ☐ **$30.00 for nonSOG members**

☐ **Check Enclosed**

Credit Card payment number _____

Expiration Date _____/_____

Signature _____

DEADLINE IS MARCH 1, 2009!

Mail to: **Section on Geriatrics**
1111 North Fairfax
Alexandria, VA 22314

HOW STRESS AFFECTS CAREGIVERS OF PEOPLE WITH CHRONIC ILLNESS AND DEMENTIA

William H. Staples PT, DPT, GCS

The majority of chronically ill, frail, or demented elderly are cared for by family members. The Alzheimer's Association[1] states that of the 5 million people estimated to have Alzheimer's disease in 2008 that up to 80% are cared for at home, primarily by family members.[2] These family caregivers have been shown to suffer from higher rates of stress, depression, family discord, poorer physical health, sense of well-being, and self-efficacy when compared to noncaregivers.[3] There has been a great deal of research in the last decade dealing with the determinants of stress and burden for caregivers. This caregiver stress, with some differences, appears to cross family relationship, gender, cultural, and racial lines. Hobfoll's[4] Conservation of Resources Theory, looks at the stress model that addresses how changes over time can result in stress. When necessary resources are limited, lost, or threatened with loss, stress results from not being able to match the needs of the individual to the available resources. This can occur whether the situation is happening or perceived. The lower the resources available combined with a higher need would result in higher stress. This theory would propose a decrease in stress when resources are made available or are increased. Resources can be internal and external. Internal resources may consist of positive coping strategies and realistic appraisals of a situation. External resources could include family, social, or financial support.

EFFECTS OF STRESS ON CAREGIVER HEALTH

Stress can be a danger to the health of the caregiver. It has been hypothesized that long-term stress can suppress the immune system and activate the limbic system.[5] The human body is designed to experience stress and react to it. Stress, on a short-term basis, can be positive, keeping us alert and ready to avoid danger. Stress becomes negative when a person faces continuous challenges without relief or relaxation between challenges. As a result, the person becomes overworked, and stress-related tension builds. Stress that continues without relief can lead to clinical depression or a condition called distress.[6] Distress can lead to physical symptoms including headaches, increased muscle tension, upset stomach, elevated blood pressure, chest pain, and problems sleeping.[7] Research[8,9] suggests that stress and workload can depress the immune system and reduce sleep which can bring on or worsen certain illnesses, symptoms, or diseases including coronary artery disease among others. This stress may have additional deleterious health effects on the body that can lead to an increased risk for premature death.[10] It is also possible that the increased risk for early death is due to the lack of self care or maladaptive ways of coping with the stress such as excessive alcohol or drug intake.[11] The hormones that are released when under stress are cortisol and catecholamines. These have been tied to these long-term effects of stress. Brain cells that are constantly bombarded by stress signals have little recovery time and may eventually start to shrink and cut connections to other brain cells. This rearrangement of the brain interferes with the neural network that coordinates our thoughts, emotions, and reactions**.** Over time, entire regions of the brain can grow or shrink. That may explain why studies have linked higher levels of stress hormones with lower memory, focus, and problem-solving skills.[12] MacKenzie[13] found cognitive impairments present in caregivers of terminally ill patients and attributed this to the daily stresses involved in this care.

" Caregiver stress with some differences appear to cross family relationships, gender, cultural, and racial lines."

Stressors can be subjective or objective and come from different sources including loss of relationship, poorer self reported health, failing health, or problematic behavior of the care-recipient, financial problems, changes in the environment, fear of change, and the unexpected to list a few. Negative health behaviors and greater use of health care services are mediated by the caregiver's feeling of overload and can be measured objectively.[14]

DESCRIPTION OF STRESSORS

The literature classifies these stressors as caregiver burden.[8-14] Thommesson[15] et al investigated the psychosocial burden of spouses living with an elderly person with a stroke, Parkinson's disease, or mild dementia. The authors found that the 4 most frequently reported problems (stressors) were "disorganization of household routines, difficulties with going away for holidays, restrictions on social life, and disturbances of sleep." They also determined that it appears that the lower the cognitive function of the care recipient the higher the psychosocial burden for the caregiver. Caregiver burden appears to be a multidimensional, subjective measure of the effect of all the stresses or stressors that are associated with providing care. Caregivers are often overlooked by the medical profession, but their health and well-being are vital to the health of the care-recipient. Some caregivers have difficulty in managing their own health needs due to the immense time requirements to provide care. Despite spending less time of actual care, adult children of the care recipient report more burden of caregiving than do their spouses.[16] Interestingly, male caregivers have been found to have fewer physical and psychological problems than women caregivers.[17-20] Conflicting information was found in the literature regarding rates of depression following the death of the care-recipient spouse. Schulz[17] found no increase in depression and an improvement in health practices

following the death of the spouse while Tweedy[21] found both male and female caregivers showing an increase in depression following the death of a care-recipient spouse. Over time the male's rate of depression decreases and the women's rate of depression continued to increase. It must be noted here that Barry[22] found that in the general population older women are more prone to depression and more likely to remain depressed than older men.

Caregivers spend so much time in the caregiving mode that there is little time remaining for exercise, leisure time activities, or other healthy pursuits. It is important for clinicians to assess caregiver health, needs, and stress level in order to maintain the best overall health of the care-recipient. Clinicians should appraise signs and symptoms of self-neglect and stress in the caregiver and if not in their scope of clinical practice, should refer to an appropriate professional to provide counseling or emotional support. A regular exercise program can lower blood pressure, reduce stress, and depression. Stressors, whether internal or external, need to be addressed for the best outcome. The caregiver, especially a female should be continued to be assessed for signs of clinical depression following the death of their spouse.

Most caregivers would prefer to stay in their homes and attempt to keep the ill family member from institutionalization for as long as possible despite the stress and burden they experience. Caregivers view this delay as extremely important to the quality of life of the individual.[23] Schur[24] found that the best predictors of nursing home placement were whether the caregiver felt overwhelmed in providing good care or the care recipient had difficulty performing household tasks or woke the caregiver during the night. Behavioral changes can lead to a high increase in stress that may also lead to institutionalization.[25] If the person is transferred to a nursing home, it doesn't necessarily relieve the stressors from the caregiver. The caregiver may feel a sense of failure due to role changes and feel grief for the loss of a loved one no longer home, in addition to any personal unresolved issues.[26] Sources of the distress may change from physical to emotional burden. There are stressors involved with visiting the person in a nursing home. These include travel, lack of control, scheduling, dissatisfaction with care, and continued loss of memory in the care-recipient.[26]

INTERVENTIONS

Many of the studies propose educational programming or social support for family caregivers as a way to decrease stress and burden.[6,27-30] Social support can come from many different areas and have been shown to moderate functional declines in depressed older adults. Three types of social support are support groups, professional or formal staff, and informal social support. Support groups are numerous and can be found relatively easily by searching the web. Support groups can assist individuals who need to gather information about a disease process, discuss methods of care, find additional resources available, and help the caregiver begin to develop a personal sense of mastery. Personal mastery is the sense one has of being in control of one's life and circumstances. Adams[6] and Mausbach[31] have found that improved personal mastery can help adults adapt to the changes and losses that can accompany the care of someone with dementia. It is also associated with reduced risk for mortality. Personal mastery has also been found to prevent or reduce depressive symptoms and improve caregiver outcomes for people caring for individuals who have undergone coronary artery bypass.[32]

Karlin[29] makes a good point that the ability of the caregiver to attend the meeting was limited by their inability to leave the care-recipient to attend the meeting. A suggestion for this problem would be to have a person available at the site of the support group meeting to care for the care-receivers while the caregiver attends the meeting. There were mostly positive aspects to the support groups. That being said a number of respondents in the Karlin[29] article had negative responses regarding some of these support groups. Some caregivers, although a minority, actually felt an increased sense of burden from attending these meetings because of requests for monetary donations or the fear of hearing horror stories about the disease process. Meeting attendance actually added to their stress because they became more worried about the future. Another significant finding of concern in this study,[29] is that most physicians do not make a recommendation to caregivers to attend a support group meeting. Perhaps physicians need to be educated in this area and have information available. This writer has attended several support group meetings for different diseases and has found that the sharing that goes on in these meetings with individuals within the group is invaluable. Everything from purchasing supplies to making home-made equipment to assisting with care to "dementia-proofing" your home has been discussed at these meetings.

Professional staff or formal service can have a positive affect on the caregiver's sense of well-being. Nurses, nursing aides, social workers, and therapists can all directly improve the level of function of individuals and educate the caregiver as to the best, most efficient methods of care. Proper mobility aides, care techniques, and suggestions to help with behavior modification can be invaluable. They can provide caregivers with practical help on an immediate basis or set up a referral to obtain those services. Hoskins[28] found significant decreases in caregiver stress level with the provision of multidisciplinary assessments and interventions. Behavioral problems have been shown to be a major component or predictor of caregiver burden, well-being, and depression.[3,18,30] This is probably because caregivers for chronically ill, nondemented, individuals have less difficulty with adaptation because the health of the care-recipient is relatively stable. Caring for a person with a dementia may require an ongoing demand for change as the care-recipient changes. One study[33] used a professionally led telephone support group to answer caregiver questions with good results in lowering the rate of depression.

Perren[27] found that an intervention using a "psycho-educational" group helped caregivers adapt to an environment where impairments increased. They stabilized the group's state of well-being despite the loss of cognitive and physical function and the increase in behavioral problems in the care-recipients during the 1-year program. However, 2

years following the intervention program there was no difference in the intervention group in comparison to the control group indicating that there is a strong need for continued programming.

Some formal service use, while quite helpful in the short term, may not necessarily decrease long-term burden, because these services have limitations due to restrictions in funding. Money, therefore, may become an issue or stressor in providing formal care. If the caregiver can afford to privately pay for the services, once third party payments (Medicare, private insurance) ends, then the problems are minimized. Not many people have these types of assets. If state funds (Medicaid) can be used to assist in keeping the person at home, it would be an excellent option. However, present funding is designed to pay for medical care in nursing homes. Nursing home admission, as stated earlier, may actually cause increased grief and burden. Respite care and adult daycare services can also be used to reduce stress. These time breaks from providing care given to the caregiver would certainly increase well-being and decrease burden.[28]

Informal social support can provide a great deal of well-being to the primary caregiver. Social support from a social network of friends or family members can provide emotional support and allow the caregiver to take more breaks. This can decrease the amount of stress and burden that the caregiver feels. Caregiving duties can be spread between family members thereby spreading out the burden. Families can be a tremendous source of support, but they could also cause an increase in burden and a decrease in well-being by adding another dimension of stress to the equation. Family members may be at odds on what care is best or what care should be paid for. Care transition may be forced by family members, thinking that they are doing the right thing.

Karlin[29] describes two themes that would most affect the caregiver's ability to provide adequate and less stressful care. These are a changing or role reversal, and support sources and resources. Caregiver's would have to be able to accept a changing role. In the case of Alzheimer's disease, the care transition is usually slow as compared to a person that suffers a debilitating stroke. This longer time period may allow for support structures to build up over time. Acceptance of the role would allow the caregiver to get done the things that had to be done to continue living in place. If the caregiver felt imposed upon and angry about the status of the new role, then the appropriate procedures and tasks could not be accomplished. This does not mean that the primary caregiver would have to do everything themselves. This role would encompass a leader role to find necessary services and coordinate them to meet the care-receivers needs. This role would be like a foreman on a construction project, making sure that the details were taken care of. This would run the gamut from ordering medication via phone to organizing home maintenance to hiring a certified nurse assistant to provide personal care such as bathing to the care-receiver. This would build an increase in self-efficacy and decrease stress. If the role cannot be accepted and the stressors remain too great then a move to a different environment may be necessitated. A forced move could add to the stress and burden endured by the caregiver.

Support services and resources may include many options for individuals wanting to remain in their residence. By being able to keep the care-recipient at home, the caregiver could also remain. Again, support services can be formal, informal, or a combination. It could include adult day car services, and homemaker services to allow the caregiver a "mental break." Funding for these services is crucial to a positive outcome for the caregiver and the care-recipient. Resources might include church or community groups or charities. The assisted caregiver will be much more likely to have success if the services can be provided to the care-recipient in the home.

As stated earlier, most caregivers do not want to place their relative in a nursing home that can cause a lot of guilt and shame especially in certain cultures. If the services provided in a nursing home were available in a person's choice of home, then it would result in a more successful aging process. Protecting the care-receivers from themselves is an important and time consuming process. Some people with moderate dementia require 24-hour care to prevent dangerous situations from occurring. This can create quite a burden for the caregiver. This could result in the need to move to a more protected environment where the person can be monitored. If that same type of care or monitoring could be provided in the home, then the burden for the caregiver can be lessened. This can lead to a better outcome. Successful aging can occur if physiologic impairments and limitations can be compensated for at the desired place of living.

At present support services can be difficult to obtain and coordination of those services can be confusing. Some services are not readily available in certain areas. Support services and groups are more readily available in metropolitan areas as compared to a rural setting. Many times care-receivers are fit into an existing system when the best result would be to have the system fit to the individual. A way must be found to reduce the complexity and fragmentation of the system of care. Additionally, it is vital to improve the awareness of available services to potential consumers to facilitate their use.

Social support provided in the home environment can increase the sense of well-being and self-esteem of the caregiver and the care-receiver. The hours of informal care provided by the primary caregiver can be reduced to enable reduced stress. Policies including monetary ones, and services including care in the home, need to be adopted that will allow individuals to receive the necessary care in their homes that will reduce stress.

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DISSEMINATING EVIDENCE BY PRESENTING AT A PROFESSIONAL CONFERENCE

Jim Smith, PT, DPT; Molly Crist, PT, DPT

AMERICAN PHYSICAL THERAPY ASSOCIATION CONFERENCES

Conferences run by an organization of professionals, such as the American Physical Therapy Association (APTA), provide an excellent forum for professional dialogue. Different than more traditional media like newsletters and journals, these conferences provide a unique and energetic atmosphere for the disbursement and analysis of evolving knowledge and issues related to professional practice. The APTA runs 2 conferences that provide members the opportunity to share their scholarship with the community. The *Annual Conference and Exposition* is held each June and the *Combined Sections Meeting* (CSM) is held annually in February. Most of the presentations at these conferences are provided by physical therapists (PTs).

The purpose of this article is to guide and assist you in preparing and presenting at a professional conference. Do not stop reading this article because you think you have nothing to offer. We assert that the *clinicians* serving the older people in our communities have a wealth of experience that needs to be shared. For example, if you encounter an unusual case or patient response, if you are implementing an innovative strategy in your practice, or if you are investigating new techniques for patient/client management, you *should* share that information with the profession. The presentation may also introduce you to colleagues working to solve a similar problem or it may generate feedback, in a collegial forum, from other clinicians. Our goals in this article are to persuade you, the clinician, that your voice is needed in this kind of professional forum and to assuage your concerns by outlining the process and recommending strategies that will foster your success in developing and providing a presentation.

Combined Sections Meeting is the Section on Geriatrics' primary live venue for the dissemination and analysis of new information and clinical strategies, facilitation of discussions that are important to the profession, and it provides an optimal environment for the germination of the professional networking that is critical for the advancement of clinical practice. Therefore, that conference will be the model that will be used to describe the process to follow to propose and offer a presentation; the strategies described here also apply to many other scientific conferences.

THE CALL FOR PROPOSALS

There is a review process to vet and select which presentations will be provided at CSM. This process does not ensure that each presentation will be exciting and informative, but it does ensure that the proposed presentation has merit and relevance to physical therapy. The first phase in the process is a "call for proposals" and a "call for abstracts." The publication of these begins more than a year in advance of the conference. The calls are publicized in the profession's publications, such as an accompaniment to *Physical Therapy,* inclusion in *GeriNotes,* and identification on the APTA's and the Section's Web sites. The submission deadline is usually 8 to 10 months prior to the conference.

TYPES OF PRESENTATIONS

The first step in the development of a proposal is to determine the best format for the presentation. There are 3 forums for presenting information: educational sessions, poster presentations, and platform presentations. The *educational sessions* usually run from 1 to 4 hours, and occasionally longer, with content at an appropriate depth and breadth for a professional conference. *Platform presentations* are 20 minute instructional sessions on a focused topic. *Poster presentations* are educational reports in which the information is shared through written and graphic material presented on a poster. The posters are made available for general viewing with an assigned time when the presenters will be in attendance to answer questions about their work.

We postulate that less experienced presenters will have greater success starting with a platform or poster presentation. The presenter should also evaluate both the content and her/his strengths to determine whether a platform or a poster presentation will be most successful. We offer some general guidelines below.

SUBMISSION OF A PROPOSAL

All proposals for presentations are submitted through a WWW site that is accessed from the APTA's home site (www.apta.org) and then going to the site for *Combined Sections Meeting*. The individual submitting a proposal must go through that site and create an account in ScholarOne, and that account will be password-protected so that only that individual can access it. The site will contain the instructions for the format for submitting the proposal. Information that is submitted is saved, so the author can leave that site and return at another time to add or change information. For the final submission, all of the steps for submission in ScholarOne must be complete. If you return to ScholarOne and edit the proposal, it goes back into draft mode and must be "saved" for submission. This is very important as a "draft" proposal will not be received by the reviewers. An author may also submit multiple proposals each year.

SUBMITTING A PLATFORM OR POSTER PROPOSAL

Preparing poster and platform proposals so far in advance of a presentation date may make it difficult to have completed analysis of the information, and the reviewers appreciate that some of the analysis and development of content may occur after the submission. However, every effort should be made to make the proposal as complete and thorough as possible, as this is the information that will become the record of the presentation when it is published in the *Journal of Geriatric Physical Therapy*.

The categories for platform and poster presentations are the report on *research* or scientific work completed by the author; a *special interest* report (eg, a report on a project to enhance the practice of physical therapy or one on innovations in clinical practice for the geriatric population); a *case study* report; or a *theory* report (eg, a developing concept or theory). Each of these proposals requires the submission of different types of information as described here.

The components of a research report proposal are:

- Title
- Purpose/hypothesis
- Number of subjects
- Methods/materials
- Results
- Conclusions
- Clinical relevance

Perhaps you recently participated in an academic course that asked you to identify a clinical question and design a strategy to collect and analyze data. Why not take this project to the next level and prepare it for presentation?

Examples of **research reports** presented at CSM 2008 are:

1. *Active Steps: Outcome Measures of a Program for People with Diabetes and Impaired Mobility.* Pariser GL, Demuro M, Winters S, Gillette P. (Poster)
2. *The Effect of Physical Activity on Strength, Balance, Functional Mobility and Falls in the Elderly.* Walker CL. (Platform)

The components of a **special interest** report proposal are:

- Title
- Purpose
- Description
- Summary
- Importance to members

Because of the nature of our practice, the provision of physical therapy for persons who are older is full of opportunities for special interest discussions. The examples below illustrate the range of possibilities, such as evaluating preferred practices for intervention or examination of older adults. Perhaps you are working on something for continuous quality improvement or with a unique population of patients and you reach some interesting conclusions that might have broader implications. Write them up!

1. *Physical Therapy Interventions for Older Adults with Chronic Pain.* Beissner K. (Platform)
2. *What Can Brief Gait and Balance Physical Performance Measures Tell Us About More Demanding Task Performance in Community-Dwelling Older Adults?* Schrodt L, McPherson S, Palmer C, Watson D, Boles K, Harris J, Ohmann G, Wood J. (Poster)

The components of a case study report are:

- Title
- Background and purpose
- Case description
- Outcomes
- Discussion

The case report has undergone a renaissance of sorts, and the unpredictability and complexity of health needs lends itself very well to this type of delivery format. Clinicians caring for patients and clients who are older see it all! Share what you have seen, and how you have handled it.

Example of a **Case Report** presented at CSM 2008:

1. *Rehabilitation of a Centenarian.* Hartley GW, Cope KA, Lemberger RR, Santana KM, Gravano T. (Poster)

The components of a theory report are:

- Title
- Abstract body

Example of a **Theory Report** presented at CSM 2008:

1. *Exercise Resonance: The Experience of Women Who Adopt Exercise After Age 50.* Weddle M. (Poster)

Determining whether you should use a poster or platform approach to disseminate your content is largely a personal decision. Some individuals prefer to speak to an assembled group using visual aids within a structured time frame, with minimal opportunity for exchange with an audience. This type of presenter will do well in a platform session, which is generally scheduled as part of a group of presentations moderated by a colleague. When developing a platform presentation, the presenter should be careful to consider the time frame and the needs of an audience to see and understand any visual data that will be used. For example, small font size on slides and multiple flow charts and graphs should be avoided as all content should be large enough for the audience to easily see. Refer back to the November 2007 *GeriNotes* article, Putting Power in your Point, for additional detail. For individuals that like a less formal timetable and are interested in generating discussion about their work, poster presentations allow for a great deal more interaction between the author and interested parties. As with platform presentations, poster font size, colors, and graphics should have an aesthetically pleasing appearance while being large enough to see and understand. Less is sometimes more, and care should be taken to ensure that the content included in the presentation is valuable to the topic and focused. When putting together a poster, think ahead about *portability* if you have a long distance to travel.

PREPARING AN EDUCATIONAL SESSION PROPOSAL

Development of an educational session proposal is on a slightly different time frame than that of a platform or poster, but it is still well in advance of the meeting. The call for proposals establishes the criteria for acceptance, and for the CSM the "selection of proposals will be based on their foundation in evidence, clarity, probability of interest to participants, fiscal feasibility, and space and time constraints."[1] Therefore, proposals should address these topics within the framework of their components when prepared for submission. The components of a proposal include the course title, description, learning objectives, instructional level, session outline, references, and speaker information.

We recommend the first step in developing the proposal be the establishment of the learning objectives for those who attend the presentation. Those objectives will also provide the presenters with a guide as the presentation is developed. A proposal for an educational session at CSM must contain 3 to 5 learning objectives and these must be stated in behavioral terms. Therefore,

the objectives should describe what the attendee will be able *to do* or *demonstrate* after the presentation. Behavioral terms might include the expectation that the attendee will be able to "describe," "perform," "administer," "measure," "identify," "demonstrate," "justify," or "evaluate." Descriptions that the attendee "will understand" or "will have knowledge" are not behavioral terms and are not appropriate.

" We assert that the clinicians serving the older people in our communities have a wealth of experience to share."

The next step should be the development of a description of the course. The description is a narrative that will explain to potential attendees the type and content of the presentation. The published session description will be less than 150 words, so this should be edited judiciously so that the critical components of the course are identified.

The submission must also contain references that identify the evidence that supports the content that will be provided in the presentation. A minimum of 5 references, from sources within the last 5 years, must be provided so that the presentation may qualify attendees for receipt of continuing education units; inclusion of additional references will strengthen the proposal.

Once these pieces are in place it is easier to determine the title of the course. The title should be a concise description of the specific issues to be addressed within the presentation. Potential attendees should be able to determine from the title if the session is of interest to them, and if it is of interest they can rely on the description and learning objectives for additional details.

EVALUATION OF PROPOSALS

The decision for all 3 types of proposals is a juried process in which the submission is reviewed by a committee. The process does not provide the committee members with identities of the presenters, so that the proposal is evaluated only on the merits of the submitted content. The evaluation will address the domains of design, importance to the field, and the quality of the proposal.

The evaluation of the design of the proposal for poster and platform presentation is an assessment of the design and methods applied to an investigation. Other types of proposals will be evaluated on the design of the instructional activities to ensure effective learning by participants.

The topic of importance to the field is evaluated relative to the general interest and applicability of the topic to PTs, physical therapist assistants, and students. The proposal for a platform or poster presentation is submitted directly to one of the 18 Sections of the APTA. Therefore a submission to the Section on Geriatrics is an appropriate "fit" if it addresses the interests of physical therapists, physical therapist assistants, or physical therapy students in the provision of services to geriatric individuals. A proposal for an education session is reviewed by the Section of the APTA to which it is submitted; therefore the submitter is charged with identifying the 2 sections that appear to fit best with that presentation. Because of the number and breadth of proposals typically received, the submitter should be considerate about identifying appropriate Sections so that the proposal is directed to suitable reviewers. This will not only increase the chance for acceptance, but it will also lay the groundwork for collaboration with other specialty sections. Not sure about your idea? Contact information for all educational program chairpersons is available through APTA. We are physical therapists just like you, and we enjoy hearing what you have to offer. Often, program chairpersons can provide the guidance and networking needed to get a concept off the ground.

The submission is also evaluated relative to the quality of the writing in the proposal. It is important to submit a proposal that is logical, organized, and clearly written. The language and content of the proposal should also comply with APTA policies, the language in the *Guide to Physical Therapist Practice,*[2] and with people-first language.

LANGUAGE OF THE PROPOSAL

The language and phrases in the proposal should be consistent with the language and phrases the profession has agreed to for the description patient/client management. For example, it is appropriate to address the PT's responsibilities of examination, evaluation, and determination of a prognosis. In contrast, it is inappropriate to use language such as receiving "orders" for services (rather than "consultation" or "referral") or for the "delegation" of services (rather than "direction and supervision").[2]

It is a policy of the APTA that "Physical therapy practitioners have an obligation to provide nonjudgmental care to all people who need it. They should be guided in their written and spoken communication by the *Guidelines for Reporting and Writing About People with Disabilities*. APTA members are encouraged to use appropriate terminology for specific disabilities as outlined in the *Guidelines*. Furthermore, all members should put people first, not their disability, when communicating about a patient/client."[3] Therefore, all communication in the proposal and in the presentation should adhere to the use of people-first language. In the proposal a person, group, or population cannot be referred to by a disability or condition, and terms that could be considered biasing or discriminatory in any way must be removed. An appropriate description is "people with cardiac conditions" instead of "cardiac patients" or "my patient who was depressed" rather than "my depressed patient." The *Guidelines for Reporting and Writing About People with Disabilities* provide more information and are available on the WWW from the Schiefelbusch Institute for Lifespan Studies at www.lsi.ku.edu/lsi/internal/guidelines.html.[4]

In the process of developing the presentation the author(s) should identify and remove redundancies (eg, "end result"), tentative phrases (eg, "we just…"), and vague qualifiers. Examples of qualifiers might be "gentle" stretching or "aggressive" physical therapy exercises. These words do not provide clarity about the interventions. The final product, whether written or spoken, should contain an active voice which is concise and accurate.

PROPOSAL CONTENT

In summary, the process for the review of a proposal is not a formative process with the opportunity for feedback and improvement. Therefore, when developing a proposal the developer(s) should edit and revise carefully and they should solicit critical review from colleagues prior to submission. Additional resources for constructive feedback include the *Members Mentoring Members* program (an APTA member benefit, accessed through www.apta.org under the '*Tools and Resources*' link), individuals within a local physical therapy academic institution, and the Education Committee of the Section on Geriatrics. There is a strong support system out there, but you first need to ask for the assistance. This process also takes some time, so start early so that you allow people the time necessary to review your proposal and provide feedback.

CONFERENCE FEES AND HONORARIUMS

There is a fee of $25.00 associated with the submission of each abstract for a poster or platform presentation. The fee is applied to defray a portion of the expense of the WWW based platform used to manage the submissions. There is not a fee associated with a submission of a proposal for an educational session.

It is expected that all conference attendees will pay the registration cost for attending a conference. At CSM, for example, presenters of platform and poster presentations must register for the conference. Presenters of educational sessions do not need to register to attend the conference on the day that they are presenting. However, attendance on any other day will require registration. If the presenter of an educational session wishes to register for the entire conference, the registration fee is pro-rated to adjust for the day of presentation.

There is no reimbursement for presenters of platform or poster presentations. Some of the sections do not provide an honorarium to those who present educational sessions at CSM, as it is considered a professional responsibility and honor to present at the conference. The Section on Geriatrics does provide an honorarium of $200 per speaking hour (divided among presenters, if more than one) to presenters of educational sessions; this honorarium may be reduced if deadlines are missed (eg, submission of the digital copy of the handout that accompanies the presentation). Also, speakers may opt to have their honoraria donated back to the Section or to another specified recipient such as The Foundation for Physical Therapy, which is an excellent opportunity to make a donation to a deserving cause.

SUCCESSFUL PRESENTATIONS

There are many influences on the success of a presentation and one of the most important is preparation. Presenters should be prepared for an interested audience of colleagues. As scientists and professionals these colleagues will expect that the presentation will be evidence-based and the presenter(s) should be conversant in the literature related to the topic. However, presenters should not feel pressured to be an expert on all issues--question and answer sessions are a wonderful opportunity to solicit information and recommendations from an audience of colleagues who are valuable resources.

Presenters should be considerate of the audience at CSM, which will contain PTs, physical therapist assistants and physical therapy students. The presenter should use inclusive terms where appropriate. Since it is awkward to refer to "PTs, physical therapist assistants and physical therapy students" it may be easier to refer to "clinicians."

The verbal portion of the presentation is usually supported by visual aides--slides with text, graphs, and illustrations. These will be projected by an LCD projector and the presenter is responsible for providing their own laptop computer for the presentation. The speaker will speak into a lavalier microphone, which will amplify the presentation and in some situations it will also record the presentation. The use of any other audiovisual technology requires approval by the Section's Program Chairperson well in advance of the conference; additional equipment cannot be obtained on short notice. Handouts to accompany the presentation will be available at the conference's www site. No handouts or commercial advertisement can be provided without prior approval from the Program Chairperson.

One important resource to presenters is the "Speakers' Ready Room" which will be available at the conference facilities. This room contains the same technology that will be used for the presentation, so the presenter has the opportunity to connect their computer and become comfortable with the equipment, and to practice prior to the presentation. This room is also the place to pick up a "speaker" ribbon to be displayed on a name badge. The room is staffed by the APTA and it is where you will find a reassuring resource to answer any questions you have as you count down to taking the stage for a successful presentation.

CONCLUSION

CSM is a valuable forum for dialogue about the science of healing and the art of caring. Members of the Section on Geriatrics should contribute to this dialogue as presenters of posters, platform presentations, and educational sessions, and those contributions are important to the advancement of the physical therapy services we provide in our communities. We look forward to your presentation at an upcoming CSM!

ACKNOWLEDGEMENTS

Jill Heitzman, PT, DPT, GCS, FCCWS is the Program Chair for the Section on Geriatrics. She can be contacted at jheitzpt@aol.com with questions about presenting for the Section.

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2008 Section on Geriatric Election Results

President		Vice President	
John Bar		**Alice Bell**	
PT Votes	483	PT Votes	482
PTA Votes	9.5	PTA Votes	9.5
Total	**492.5**	**Total**	**491.5**

Director 2 positions		Nominating Committee 1 position	
Violet Acuna-Parker		**Jane Okubo**	
PT Votes	411	PT Votes	190
PTA Votes	9	PTA Votes	7
Total	**420**	**Total**	**197**
Ellen Strunk		**Rita Wong**	
PT Votes	473	PT Total	278
PTA Votes	9.5	PTA Votes	2.5
Total	**482.5**	**Total**	**280.5**

Total PT Valid Ballots Received:	483
Total PTA Valid Ballots Received:	19
* Ballots returned with ID number not on list (not counted)	5
* Ballots returned with no ID numbers (not counted)	59
** Ballots returned with no votes marked (not counted	2
Total Ballots	**568**

Charles J. Gulas, PT, Ph.D., GCS, Teller

FUNCTIONAL ASSESSMENT AS THE TOOL FOR THE GERIATRIC PRACTITIONER GERIATRIC RESIDENCY EXPERIENCE

Suzanne Bastos, PT, MSPT, GCS; Marangela Obispo, PT, MSPT, GCS

OVERVIEW

Functional assessment of the geriatric patient is a crucial component of client management that should be an assumed standard of practice for all geriatric practitioners. Physical therapists are movement specialists who have a variety of clinical measures available to them in order to determine appropriate intervention plan, patient prognosis, and to assist the geriatric practitioner in determining the most appropriate discharge location.

Functional assessments are standardized measures used by the geriatric practitioner to assess targeted aspects of function in the geriatric population. According to Lewis and Bottomley,[1] there are 3 main components that express why functional assessments are such an important element of patient management. First, the Centers for Medicare and Medicaid Services (CSM) have placed a great emphasis on the word "function" in their regulations for rehabilitation, which dictates reimbursement for therapists' service. This in itself should encourage geriatric therapists to think about and use standardized functional measures on a regular basis. Second, typical measures taken by physical therapists include ROM and manual muscle testing among others, which may not reflect a patient's actual functional status; therefore, it is important to correlate typical musculoskeletal measurements to physical function when treating the geriatric patient. Third, functional assessment tools play a vital role in demonstrating and documenting outcomes of rehabilitation by using standardized measures that have both established validity and reliability.

There are numerous assessment tools available that measure various aspects of functional status and can document outcomes of rehabilitation in the geriatric client. These outcome measures are used to assess a variety of aspects of overall function including mental status (cognition), mobility, posture, gait, balance, risk for falls, cardiopulmonary function (endurance), activities of daily living (ADLs), and pain. Some tools are multidimensional, assessing multiple components of function. Multidimensional tools are inherently more comprehensive than tools that assess a single dimension. Their complexity usually makes them less practical and potentially overly burdensome for day-to-day use. However, geriatric physical therapists are quite familiar with multidimensional tools used by the CMS as the basis for reimbursement, as previously mentioned (ie, Minimum Data Sheet [MDS], Outcome and Assessment Information Set [OASIS], Inpatient Rehabilitation Facility-Patient Assessment [IRF-PAI], Continuity Assessment Record and Evaluation [CARE Tool]). These tools, however, are used to determine the appropriate level of reimbursement and, with a few exceptions, were not originally designed to document outcome.

As a geriatric practitioner, it is essential to understand that each examination performed on an older adult must be tailored to that individual's specific needs. Regrettably, one common fault among many physical therapists includes constructing goals such as "Increase strength from 3/5 to 5/5" (Manual Muscle Testing), or "Increase ROM from 70° shoulder flexion to 180°." These goals may not be the most appropriate goals for the geriatric client for many reasons. Manual muscle testing is an important component of patient examination, but it should not be the sole measure of strength used with an older adult. An 86-year-old woman might present with 4/5 lower extremity muscle strength but may be unable to transfer independently, or may be able to transfer with great difficulty from a standard height chair. In this case, it would be more appropriate to create a goal centered on function such as: "Increase lower extremity strength from 4/5 to 5/5 so that the patient will be able to perform sit to stand transfer independently from a standard height chair." In addition to the MMT, it would be prudent for the geriatric physical therapist to use a functional assessment tool that incorporates the sit to stand transfer. By performing a functional assessment tool such as the Performance-Oriented Mobility Assessment (POMA)[2] or the Timed Sit to Stand test,[3] the practitioner may discover other areas of difficulty that the patient may be experiencing during every day mobility tasks. Functional goals may then be established using the standardized assessment as the objective outcome measure.

THE GERIATRIC RESIDENTS' EXPERIENCE WITH FUNCTIONAL ASSESSMENT

The fundamental purpose of the geriatric residency is to prepare residents for independent, advanced practice in geriatric physical therapy. Part of that purpose is fulfilled when the therapist becomes independent in choosing and administering the appropriate assessment tool on a regular basis. One objective of the clinical residency that the authors attended is for residents to routinely incorporate standardized functional assessments into daily physical therapy practice. Each physical therapy examination and evaluation incorporates a functional assessment tool and goals are created to reflect changes in scores within a specific time frame.

Another pillar of residency education is one-on-one mentoring for several hours per week with a Board certified geriatric physical therapist. One of the many benefits of this valuable time was becoming familiarized with each assessment tool commonly used among the geriatric population. One theme that emerged from the mentorship experience was that becoming a geriatric clinical specialist entailed being able to use these functional assessment measures consistently and appropriately among the geriatric population as a standard of

care. According to one well-respected researcher in gerontology and an advocate for functional assessment as "the tool" for geriatricians, Dr. Robert Kane states in a published article that a specialty is not truly a specialty until it has its own instrument.[1,4] For example, radiology became a specialty with the advent of the X-ray; cardiology became a specialty with the advent of the echocardiogram. While this generated some controversy, Dr. Kane's point was that the tool for geriatrics is the functional assessment.[1,4]

SPECIAL POPULATIONS

Parkinson's Disease

Physical therapists play a major role in assessing the ability of people with Parkinson's disease (PD) to perform complex motor tasks that are routinely performed in everyday life.[5] Using ordinary examination tools such as manual muscle testing and ROM may be inappropriate in patients with PD secondary to the presence of increased rigidity and postural changes that would confound these routine measures. The hallmark impairments associated with PD (ie, rigidity, bradykinesia, tremor, loss of postural control) can lead to a decline in functional status, even though patients may continue to present with good strength. In many cases individuals with PD and "good" strength may have difficulty performing routine tasks such as walking, rising from a chair, and moving in bed. It is imperative then, that geriatric physical therapists use principles of evidence-based practice to select appropriate tests and measures that assess functional status in this special population. The Timed Up & Go (TUG) is useful as a measure of transfer skill and ambulation. Morris et al[5] found that interrater reliability measurements of the TUG in patients with PD were high (ICC .87-.99), and the measurements reflected changes in performance according to Levodopa use. Therefore, it is important to note whether the patient's medication cycle is "on" or "off" when this test is performed, and re-examinations should be done during the same medication cycle.

The 2-minute walk test is a safe, simple, and useful measure of walking ability in people with PD.[6] Light et al[7] demonstrated that subjects with PD walk a significantly shorter distance (X=~88 meters [294 ft]) than sex- and age-matched control subjects (X=~182 meters [608 ft]) on this test. Knowledge of how people with PD perform on functional assessments like these (compared to control groups) is essential in designing an evidence-based plan of care that is both realistic and achievable.

" Functional assessment tools play a vital role in demonstrating and documenting the outcomes of rehabilitation."

Cardiopulmonary Conditions

One component of function that is overlooked by some therapists is the ability of the older adult to function over community distances rather than household distances.[8,9] Community mobility requires an individual to ambulate longer distances. For example, going to the grocery store requires a person to ambulate a minimum of 230 to 342 meters.[8] A measure of physical endurance, such as the 6 minute walk test (6MWT), may therefore be a crucial component of the community-dwelling patient assessment. However, modified versions of the 6MWT have been useful in assessment of more compromised individuals (allowing rest periods, for example). The 6MWT is now widely used to assess exercise tolerance in adults with cardiac and respiratory conditions.[10] The 6MWT is also used to asses functional exercise capacity (endurance) in frail and deconditioned individuals.[11] The 6MWT has been found to discriminate between healthy older adults and those with class II and III heart failure,[12] and has been used to predict hospitalization and mortality in patients with left ventricular dysfunction and advanced lung disease.[13] An appreciation for the clinical utility of such a simple test is helpful for all physical therapists but especially those therapists focused in the field of geriatrics. Geriatric patients are often at risk of being discharged from (inpatient) rehabilitation when they can walk as little as 50 feet (often determined by payors). The 6MWT is a valid measure of progress that can easily be performed in any setting, and does not have the potential of a ceiling effect; therefore making this tool a measure of function across the continuum of care.

The Complex Older Adult

A referral for physical therapy services for gait dysfunction in an older adult is never quite so cut and dry. Every case is unique and, more times than not, quite complex. A "simple" orthopedic case involving an 87-year-old male status-post total knee replacement may seem straight forward until the chart review is performed and history revealed. Upon a thorough review, a complex past medical history may be discovered. Perhaps the gentleman has Type II diabetes, congestive heart failure with a low ejection fraction, a history of multiple falls (3 in the past 6 months), severe lumbar stenosis with chronic pain, and he has been the primary caregiver for his 85-year-old wife who has moderate dementia. Suddenly, this seemingly straight forward case may not be as text-book as it initially sounded.

When choosing a functional assessment tool for this patient with a complex medical history, the geriatric physical therapist first needs to decide what facet of function to focus upon. For example, if one is interested in lower extremity strength and transfer status, the timed sit to stand may be indicated.[3] If endurance (including community-level function) and cardiac fitness is the target component, then the 6MWT vs. 2MWT may be the most efficient tool since these tools appraise mobility as a component of the test. Single limb stance time may be indicated to measure static balance.[14] The Dynamic Gait Index or Gait Assessment Rating Score may be used to qualify gait. Fall risk and balance, a crucial component of a complete geriatric assessment, may be assessed using one or a combination of several tools, including the Berg Balance Scale, POMA, TUG, or Functional Reach. The Falls Efficacy Scale or the Activities-specific Balance Confidence Scale may be used to measure fear of falling, an important component of fall risk assessment.

With so many assessment tools to choose from, selection of the most appropriate measures requires knowledge of the evidence (validity, reliability, clini-

cal utility, and applicability), skills in test/examination, administration, and practice in order to perform a comprehensive, evidence-based, and clinically relevant functional examination of the geriatric patient.

THE FORGOTTEN ASSESSMENT: COGNITION AND EMOTIONAL STATUS

In a study of long-term outcomes after hip fracture for older adults, results showed that the most important variable in successful rehabilitation was the presence or absence of depression.[15] This study has valuable implications for the geriatric practitioner in that it demonstrates that unless the older adult's emotional and mental abilities are addressed, the physical efforts may have minimal to no significant effect.[15,16]

This study succeeds in highlighting the importance of a comprehensive psychosocial evaluation when dealing with the complex older adult. There are specific tools that can make a monumental difference in the rehabilitative care of these older adults. The Geriatric Depression Scale (GDS)[1] is one such instrument.

Depression is grossly under diagnosed by the medical profession in older adults.[9] Depressive symptoms are associated with poor health and functional status and have been identified as both a cause and effect of impaired functional status.[17] The GDS (available in long form and short form) is a simple, fast screening tool to assess the likelihood that a patient may be depressed. While the GDS does not definitively diagnose the condition, it provides valuable insight into treatment interventions, treatment duration, and may assist in the prediction of overall length of stay, etc.

The presence of cognitive decline is not a normal component of aging but its incidence does increase with advancing age.[9] If cognitive deficits are found or suspected during the examination, the therapists' next step should be to look for any reversible causes, such as medication side effects, depression, etc.[9] The presence of cognitive abnormalities may be a "red flag" that requires referral back to the physician. The Mini-Mental State Exam (MMSE) is a common and useful tool used to screen for cognitive decline and dementia in older adults.[1,9]

Cognitive and emotional status among the geriatric population should not be overlooked as it has such a huge impact on patient outcome. Regular screening with assessment tools such as the GDS or MMSE should be a standard practice of care (whether it is done by the physical therapist or not). Simply knowing the date of the test and the results is often all that is required. If abnormal results are found, referral to the appropriate professional is indicated.

CONCLUSION

As a profession that is preparing autonomous practice,[18] physical therapists must incorporate standardized functional assessment tools into daily practice. Functional assessment tools are a fundamental component of evidence-based practice and standardized tests allow for a common language among physical therapists world-wide. Standardized functional assessments are the key to demonstrating objective progress in the geriatric population. In June of this year, the APTA House of Delegates passed RC 4-08 which endorses the World Health Organization (WHO) International Classification of Functioning, Disability, and Health (ICF) model.[19] The ICF model "uses a broad view of health-related states from biological, personal, and social perspectives."[19] It includes a "robust and rich taxonomy that describes, rather than classifies, individuals according to their functioning and provides a standard language that includes positive and negative aspects of functioning."[19] As a result of RC 4-08, "ICF language shall be incorporated into all relevant Association publications, documentations, and communications through existing planned review and revision cycles."[19] In geriatrics, we already use functional assessments to communicate with each other, with referral sources, and with payors. Because of that, the language of the ICF is one in which we are already fluent.[19] Continued use of standardized functional assessments will go a long way towards defining and describing function in a way that is understandable to everyone.

FUNCTIONAL ASSESSMENT TOOLS

Parkinson's Disease
- Timed Up and Go
- 2 Minute Walk Test

Cardiopulmonary
- 6 Minute Walk Test

Complex Medical Conditions
- Timed Sit to Stand
- 2 or 6 Minute Walk Test
- Dynamic Gait Index

Fall Risk and Balance
- Berg Balance Scale
- Performance- Oriented Mobility Assessment
- Timed up and Go
- Functional Reach

Fear of Falling
- Falls Efficacy Scale
- Activities Balance Confidence Scale

Cognition / Emotional
- Geriatric Depression Scale
- Mini-Mental State Exam

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Newly Certified GCS', Recertified GCS' & First Time Attendees

to the

Annual GSC Breakfast!

The GCS Breakfast will be on Tuesday, February 10, 09'

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

PHARMACOLOGICAL CONSIDERATIONS IN PHYSICAL THERAPY INTERVENTION FOR KNEE PAIN FOR A PATIENT WITH RENAL INSUFFICIENCY

Molly J. Lahn, PT

The College of St. Scholastica's t-DPT online program includes a Pharmocology for Physical Therapists course. The therapists not only learn about the medications and side effects, but how this affects the Physical Therapy Plan of Care. Understanding the effects of physical therapy interventions and medications on the body and how these effects assist/hinder each other, is an important component of primary care delivery. The students taking this course also learn about research and case study writing/presentations.

CASE HISTORY AND BACKGROUND

The patient is a 52-year-old public relations worker who presents to outpatient physical therapy with severe left knee pain after increasing her exercise program at the gym. The patient denies any specific twisting injury or trauma to the knee. Radiographs taken in urgent care were positive for moderate degenerative changes at the patellofemoral and tibiofemoral joints. Her pain levels range from 5 to 9 out of 10 on the visual analog scale, and she requires a cane and knee brace for ambulation. Her goal is to return to a regular walking program and workouts at the gym. The patient's medical profile is significant for obesity, hypertension, migraines, chronic obstructive pulmonary disease (COPD), and asthma. She underwent a right radical nephrectomy 5 months ago due to an abnormal cyst and has chronic renal insufficiency following the procedure. Her current medications include atenolol, ipratropium, albuterol, and eletriptan. She is also taking acetaminophen and hydrocodone (Vicodin) for the knee pain.

In order to gain a better understanding of how physical therapy intervention is affected in this case, there are a number of pathophysiological and pharmacological factors to consider. The patient's chronic renal insufficiency following nephrectomy is most significant. The kidney is the major site for elimination of drugs and metabolites from the body, via the process of renal excretion.[1,2] The standard test of kidney function is creatinine clearance, which compares the level of creatinine in the urine to that in the blood.[3] After unilateral nephrectomy, the remaining kidney undergoes compensatory hypertrophy and adaptation, and creatinine clearance can increase up to 78% of preoperative levels within several weeks.[4] Despite a similar adaptive process, however, this patient's follow-up creatinine clearance levels are still below normal.

The patient also has hypertension, which adds to the issue of renal insufficiency. The kidney has a primary role in long-term blood pressure regulation via fluid balance and the renin-angiotensin mechanism.[1] Impairment of the kidneys can both contribute to and be caused by cardiovascular disease.[5,6] Due to the risk of hypertension contributing to accelerated renal function decline, this patient's blood pressure must be closely monitored.[7] Uncontrolled hypertension is the most common cause of remaining kidney failure in patients after nephrectomy.[8]

The patient is taking atenolol for the hypertension. This drug is a selective beta-1 adrenergic blocker.[1] Beta-blockers inhibit cell membrane receptors on the myocardium to decrease force and rate of the heart's contraction. Blood pressure is thus reduced via a decrease in cardiac output. Beta-blockers also may decrease general sympathetic nervous system activity, in part by inhibition of renin release from the kidneys.[1] Selective beta-1 blockers such as atenolol are known as cardioselective blockers because they act more specifically on the heart than other tissues such as the lung. Given that this patient has COPD and asthma, a cardioselective blocker is an important pharmaceutical option because nonselective beta-blockers can produce bronchoconstriction.[1]

The general pathophysiology in COPD and asthma is airway obstruction. This is caused by bronchospasm, excess mucous production, and inflammation of the airways.[1] Apart from asthma, COPD usually involves a combination of chronic bronchitis and emphysema. Chronic bronchitis results in inflammation and scarring of bronchial tissue, and emphysema causes enlarged and damaged alveoli in the lungs.[9]

This patient is taking 2 medications for asthma and COPD, ipratropium and albuterol. Ipratropium is an anticholinergic bronchodilator that blocks the release of acetylcholine in bronchial smooth muscle, thus preventing constriction.[1] Anticholinergics address the increased vagal nerve tone that causes bronchoconstriction in COPD and are therefore the first drugs used for this condition. For the treatment of asthma, however, anticholinergics are usually used in combination with other drugs.[1] Albuterol is another bronchodilator. This drug stimulates beta-2 receptors on bronchial smooth muscle and facilitates relaxation. Both albuterol and ipratropium are administered via inhalation. Because these drugs act directly on target tissues in the respiratory system, the onset of action is shortened and systemic adverse effects are minimized.[1,10]

Eletriptan is used in the treatment of migraine headaches. This drug is one of the "triptans" and is a selective serotonin receptor agonist.[11] Eletriptan causes vasoconstriction of dilated cranial blood vessels and inhibits trigeminal nerve-mediated inflammation of the dura mater.[12,13] Eletriptan is used as needed for treatment for onset of headache only, not as a preventative.[12] The drug is eliminated from the body 90% by metabolism, mostly bypassing the kidneys. In studies, subjects with even severe renal insufficiency had good renal clearance of the drug.[12] Although elimination of this drug is not an issue for this patient, eletriptan can create significant increases in blood pressure in

those with renal insufficiency. Patients with this condition are advised to stay at a relatively low dose.[12,13]

The renal insufficiency also affects pharmacological intervention for this patient's knee pain. After nephrectomy, nonsteroidal anti-inflammatory drugs (NSAIDs) should be avoided because these drugs cause decreased sodium and potassium excretion and less renal perfusion. Moreover, decreased sodium excretion can result in attenuation of antihypertensive drugs.[14] Instead of NSAIDS, the patient is taking acetaminophen, which is the only nonprescription analgesic that does not cause kidney toxicity.[8] Acetaminophen has both central and peripheral nervous system analgesic effects, but does not reduce inflammation.[1,10] This may significantly minimize effectiveness in treating this patient's inflammatory pain.

To supplement the acetaminophen, the patient is taking Vicodin to keep pain at a tolerable level. Vicodin consists of hydrocodone bitartrate and acetaminophen.[15] The hydrocodone component is an opioid analgesic which acts on opiate receptors in the central nervous system.[1] Opioids inhibit key pain pathways in the brain and spinal cord and are thought to affect both ascending and descending pain transmission.[1] Hydrocodone is considered a mild-to-moderate opioid agonist and is indicated for moderate levels of pain.[1,10]

PHARMACOLOGICAL CONSIDERATIONS IN PHYSICAL THERAPY INTERVENTION

Once the physical therapy evaluation has identified the source of the patient's knee pain, the first priority in treatment is pain relief and assisting with mobility. Since the patient is not able to take NSAIDs, intervention should focus on reducing inflammation through nonpharmacological means. This can be done with electrical stimulation, manual therapy, the use of an assistive device for ambulation, bracing, and icing.[16] The plan of care should also include normalizing gait and restoring normal range of motion and strength in the af fected extremity. As pain levels decrease, the therapist should help to encourage reduction of the hydrocodone as the patient tolerates. Active metabolites of opioids such as hydrocodone are formed in the liver and excreted by the kidney, but renal impairment can cause build up of these metabolites and cause toxicity.[7] Other side effects of hydrocodone that might affect this patient are lightheadedness, dizziness, sedation, drowsiness, mood changes, and nausea.[10]

As the patient progresses to full range of motion and is able to ambulate pain-free without an assistive device, the primary therapeutic goal becomes overall conditioning. A conditioning program for this patient is crucial for reducing the comorbid effects of obesity, hypertension, and COPD. Just weight reduction alone has been shown to reduce blood pressure in hypertensive individuals, but the addition of aerobic exercise has a cumulative effect on reducing hypertension.[17] Exercise has also been shown to minimize the effects of COPD, resulting in increased exercise capacity, less anxiety about shortness of breath, and reduced fatigue.[1,18]

In setting up a conditioning program, this patient should be advised on frequency, intensity, and duration of exercise.[16] During exercise sessions in the clinic, the therapist should monitor pulse, blood pressure, and any asthma symptoms such as shortness of breath or wheezing. The clinician should also introduce the patient to the rating of perceived exertion scale and use this throughout the course of treatment so the patient has a way of self-monitoring intensity when she exercises on her own.[16,19] These objective measurements would be valuable during subsequent visits in order to evaluate tolerance and efficacy of the conditioning program. If any asthma or COPD symptoms are evident, the therapist should educate the patient about pursed-lip breathing techniques to maximize airway clearance.[16] The therapist can also suggest type of exercise that would minimize bronchospasm. Swimming, for example, is one form of aerobic exercise that may lessen risk of asthmatic attacks.[1] This would also be an excellent way of strengthening the lower extremities without impact on the knee.

There are a few pharmacological considerations for this phase of rehabilitation. Atenolol decreases both resting and exercise heart rate and blood pressure, so this should be taken into account when monitoring exercise response.[19-21] Standard heart rate guidelines for exercise intensity are not used for patients taking beta-blockers. Ideally, intensity guidelines are set by taking measurements from a graded exercise test if this service is available.[19] Otherwise, the therapist should prescribe an exercise intensity that is 20 beats per minute above resting heart rate, if this is tolerated by the patient.[19] Atenolol is generally tolerated very well, but can cause hypotension.[19] Longstanding use of this drug has the potential to cause central nervous system effects of depression, lethargy, or sleep disorders.[1] Any of these symptoms that manifest during the course of therapy should be noted and may warrant consultation with the prescribing physician.

Because albuterol has a quick onset of action, the patient should bring this inhaler to therapy to use as needed for bronchospasm.[1,10] In addition, the patient can be advised to take a dose of the albuterol 15 minutes before exercise sessions.[10] Side effects of inhaled bronchodilators are usually quite minimal due to the direct action on target tissues, but the risk of bronchodilator toxicity does exist. Any arrhythmias noted during heart rate measurements are potential indicators of adverse effects of the bronchodilators. Other signs of bronchodilator toxicity include nervousness, tremors, and confusion.[1]

The incidence of adverse reactions of eletriptan is low, but the most common reported effects are nausea, dizziness, and somnolence.[13] If the patient's limited dose of eletriptan is not sufficient to control migraines or if adverse effects are an issue, the physician should be consulted to explore other drug options. In addition, the therapist should educate the patient about nonpharmacological means of headache management. These self-regulation techniques decrease sympathetic nervous system outflow and reduce the impact of headache pain. Biofeedback, relaxation training, and education in stress reduction and sleep habits all help improve overall well-being, increase function, and can reduce pain.[22]

CONCLUSION

To safely and effectively establish the patient plan of care, the physical therapist must consider not only the rehabilitation diagnosis but also any coexisting medical conditions. In addition, the therapist should be aware of any medications the patient is taking and the pharmacological actions of these medications. This discussion illustrates how renal insufficiency affects a patient's medication profile and how the physical therapy plan of care is accordingly modified. In this case, additional provision for pain control, focus on exercise to address comorbidities, and patient education all become important interventions. When the physical therapist applies understanding of pharmacological mechanisms, the treatment is safer and much more effective, and the patient benefits from greater outcomes.

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Molly Lahn graduated from Mayo School of Helath Sciences in 1997. Currently an outpatient physical therapist in the Park Nicollet system in the Minneapolis area, she is nearing completion of a transitional Doctor of Physical Therapy degree. Having a strong interest in treating patients holistically, Molly is working with the neurology department's multidisciplinary headache program.

MEDICAL ISSUES IN NEUROLOGICAL PHYSICAL THERAPY: TARDIVE DYSKINESIA

Kara Hunter, SPT

Tardive dyskinesia (TD) is neurological disorder that is caused by long-term usage of neuroleptic drugs, otherwise known as anti-psychotic drugs. These drugs are generally prescribed for psychiatric disorders, such as schizophrenia, as well as some gastrointestinal and neurological disorders.[1] Tardive dyskinesia is more common in individuals who are using the older generation, conventional anti-psychotic drugs such as haloperidol. The newer generation atypical anti-psychotics are safer and less commonly lead to the development of TD. Tardive syskinesia is a common disorder and is sometimes irreversible, causing impairments in an individual's ability to function socially and sometimes physiologically.

There are some risk factors that make an individual more susceptible to developing tardive dyskinesia such as: duration of exposure to the anti-psychotics, being over the age of 60, being a postmenopausal female, alcoholism and substance abuse, and mental retardation.[2] Although these are all risk factors to developing TD, the most common factors implicated in the development of TD are age, long-term anti-psychotic exposure, and conventional anti-psychotic use.[3] Greater prevalence, severity, and persistence of TD with increasing age have been reported in many studies.[4]

BACKGROUND

It is unknown how many individuals currently are suffering from tardive dyskinesia. The National Alliance on Mental Illness reported that no large-scale epidemiological prevalence survey has been conducted. A survey would be difficult to conduct and it would not necessarily be accurate due to the fact that TD can be transient or persistent. There have been several studies conducted to determine incidence of TD in smaller populations. Eight studies were conducted in individuals with an average age of 29, all receiving the conventional anti-psychotic medications. Five percent of these individuals developed TD each year, until eventually 50% to 60% developed TD throughout their lifetime.[2] Another study was conducted to determine the rate of hospitalized patients with TD. The sample of patients from a hospital in Virginia consisted of individuals that were chronically ill and presented with a psychotic or bipolar disorder. The study found that TD was present in 40% of patients taking only typical anti-psychotics, 39% of patients taking atypical anti-psychotics, and 47% of patients taking both typical and atypical anti-psychotic medications.[5] Another study was conducted on patients over the age of 55 to determine the rate of TD in the elderly. The cumulative rate of TD was 26% after one year, 52% after 2 years, and 60% after 3years. The rate of TD for individuals over age 50 beginning treatment is 3 to 5 times what has been observed in younger populations. It was determined that the movements are persistent and moderately severe at the least for the majority of elderly patients affected with TD.[4]

Tardive dyskinesia does not usually occur until after many months or years of taking anti-psychotic drugs. About 50% to 70% of cases are mild; however, 3% of cases are severe and can include difficulty swallowing, speech interference, and cosmetic disfiguration. Tardive dyskinesia is characterized by an array of repetitive, purposeless, and involuntary movements. According to Mental Health America, "Grimacing, tongue protrusion, lip smacking, puckering, and pursing, and rapid eye blinking" are common features of TD.[1] Random muscular movements occur in the tongue, mouth, face, limbs, and trunk. If the legs are severely affected by TD, than ambulation can become difficult. Respiratory muscles including the diaphragm can also become affected, which can cause grunting and difficulty breathing.[2] Another potential complication of TD is musculoskeletal pain that can be caused by the repetitive movements and static postures.[6] Tardive dyskinesia can also limit an individual whose psychosis is under control from re-entering society and the workplace. This functional limitation can lead to feelings of shame, guilt, anger, and depression. The progression of TD can vary, and although the condition may be persistent, the severity of the disease ranges from mild to moderate.[7] The Abnormal Involuntary Movement Scale (AIMS) is used to rate the pattern and severity of TD. Patients who are receiving long-term anti-psychotic medication are usually assessed annually using the AIMS.[2]

PATHOPHYSIOLOGY

The pathophysiology of tardive dyskinesia is complex and there are several theories as to how TD is induced for an individual taking conventional anti-psychotic medication. According to Margolese et al, the stress diathesis model can be used to explain the findings associated with TD. The stressor is the type, dosage, and duration of the anti-psychotic being used. The diathesis is any condition that may increase an individual's vulnerability to developing TD such as underlying motor issues associated with schizophrenia, a genetic predisposition to movement disorders, and the brain degeneration associated with aging.[7]

There are several mechanisms that can explain how TD occurs in individuals using anti-psychotic medication. First of all, all anti-psychotics block dopamine D_2 receptors. When dopamine in the nigrostriatal pathways is blocked for an extended period of time, this can cause permanent dopamine receptor hypersensitivity.[7] This blockage also causes an increase in the number of receptors in the striated region of the brain, which controls muscle coordination. The increase in receptors may cause spontaneous and random muscle contractions throughout the body.[2] Another proposed mechanism of how TD occurs is that there is damage to the striatal GABA-containing neurons. Studies have shown that there is decreased activity of glutmatic acid decarboxylase

in the substantia nigra, globus pallidus, and subthalamic nucleus. This is indicative of a degeneration of the striatopallidal and striatonigral GABA-aminergic pathways. Another mechanism of TD is that there is damage or degeneration of striatal cholinergic interneurons caused by prolonged over-activation of striatal cholinergic neurons when released from dopaminergic inhibition following the administration of anti-psychotics. This occurs because there is increased dopamine formation of free radical metabolites and there is increased excitatory glutaminergic transmission from the prefrontal cortex to the striatum.[7]

There is current research showing that there is less incidence of TD for individuals using atypical anti-psychotics such as risperidone, olanzapine, quetiapine, and ziprasidone. The first year incidence of TD in elderly patients using atypical anti-psychotics is 2.5%, which is 10 times lower than with conventional drugs.[2] The reason that atypical anti-psychotics lead to less incidence of TD is that they have less impact on the basal ganglia and are less likely to cause post-synaptic dopamine hypersensitivity.[7]

TREATMENT

There is currently not a definitive protocol that is used in the treatment of individuals with TD. Since many individuals needing anti-psychotic medication are receiving the atypical drugs, the incidence of TD is lower and a treatment plan is not a major issue.[2] In most cases, the patient's medication dosage will be adjusted gradually or discontinued if possible. The dosage will be lowered 10% to 25% every 1 to 3 months. The symptoms of TD may still be present after the drug is discontinued, but can possibly improve or disappear over time.[1] The best treatment for TD is prevention and involves treating with atypical antipsychotics first and resorting to conventional antipsychotics only when the atypical drugs are ineffective in reducing psychosis, if the patient prefers conventional drugs, or if the patient cannot tolerate the atypical anti-psychotic drugs.

Once the patient is demonstrating symptoms of TD, the most effective treatment is switching from conventional to atypical anti-psychotics. Determining which drug will be most effective is based on a patient's clinical profile and the drug's side effects and pharmacological profile. One specific anti-psychotic drug, clozapine, is believed to have a lower risk of TD and has significantly reduced the dyskinetic movements associated with TD.[3] This drug has been reported to reverse TD after 6 to 12 months, most likely through decreasing the regulation of the hypersensitive dopamine receptors.[2] The atypical anti-psychotic drugs are associated with decreased risk of causing structural damage and alterations in the neurotransmitter systems that are involved with motor control. The atypical drugs may also have a protective mechanism for individuals who are at increased risk for developing movement disorders. Compared with conventional drugs, atypical anti-psychotics are less likely to cause changes in the volume of the basal ganglia and damage to cells involved in causing TD.[7] In patients with severe TD, conventional anti-psychotics can be administered 4 times daily to suppress TD by allowing a constant blockage of dopamine receptors. This will decrease the occurrence of the severe dyskinetic movements associated with TD. This treatment method can be used temporarily while in the process of switching to an atypical anti-psychotic.[3]

Another treatment that has been studied and found to be effective in reducing the occurrence of tardive dyskinesia is vitamin E treatment. Since the mechanism of TD involves the increased production of free radicals, it has been suggested that a membrane-soluble antioxidant such as vitamin E can help decrease these effects. A study found that the mean AIMS scores for patients given vitamin E throughout a 12-week period were significantly lower than the scores of patients who were given placebo treatment. Findings indicate that the vitamin E treatment led to a 36% improvement in patients with mild TD.[8]

PHYSICAL THERAPY INTERVENTION

As far as physical therapy treatment for individuals with TD, there was little research available. There was a journal article advocating chiropractic treatment in the management of individuals with TD. According to Schoonderwoerd, "The Dystonia Medical Research Foundation states that treatment is designed to help the symptoms of spasms, pain and disturbed postures and functions." The treatment goals would be palliative in nature and treatment is geared toward helping to decrease the symptoms secondary to TD. Techniques such as soft tissue massage, assisted and independent stretching, and joint mobilization and manipulation can all be helpful in decreasing muscloskeletal pain secondary to TD.[6] All of the treatment techniques that were included in chiropractic intervention are also a part of the physical therapy scope of practice. Therefore, a physical therapist treating a patient with TD can perform massage, stretching, and joint mobilizations to help alleviate pain and musculoskeletal dysfunction. Physical therapy can also help with postural training by teaching exercises to encourage good posture as well as positions that will promote good mechanical alignment. If the patient's lower extremities are affected and there is difficulty with ambulation, physical therapy can recommend an assistive device such as a walker or cane for more stability. Once the patient receives the assistive device, a physical therapist can perform gait training to ensure that the patient safely uses the device. Since falls are common in individuals with TD secondary to random muscular movements in the trunk and limbs, a physical therapist can teach the patient how to safely get up from the floor after a fall.

SUMMARY

Tardive dyskinesia is a common issue that individuals taking anti-psychotic medications face. The prevalence of this debilitating disorder has decreased with the use of atypical drugs for treatment; however, there is more research necessary to determine the most effective drug with the least risk. There is also more research needed to determine the most efficient treatment methods to help reverse or minimize the effects of TD.

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Kara Hunter is a student at Northern Illinois University in Dekalb, IL where she will receive her Master's in physical therapy in May 2009. She plans to pursue a doctorate degree in physical therapy following graduation. At Northern Illinois University, she is a member of the Alpha Eta Allied Health Honorary Society and she is a fundraising chair for the physical therapy program.

THE PATH TO SURRENDER… TO COMFORT

Josee Cox, PTA

The National Capitol Speakers Club is an eclectic organization of enthusiastic and powerful women. The article below is from a talk given to 100 women in the Washington, DC area. The topic is one that will hit home with our clients and also some of us readers. Props included a leopard skin spiked heeled boot and a Dansko clog.

When did it happen? When did I go from a leopard skin spiked heeled boot to a Dansko Clog? When did going out at night become a chore? How did I evolve so gradually over the years to a point where I have nothing in common with my younger self? Where is the woman who wore these boots and enjoyed happy hours after work? I am afraid I killed her off with comfort.

I haven't paid much attention to the scornful thing my kids have said about my fashions over the years so memory is fuzzy on exactly when I relinquished style for comfort. And when did the quiet Saturday night at home become such a pleasure?

There doesn't seem to be any particular cataclysmic event that triggered the changed in my dress and lifestyle, like the tide, it just crept in until my closet was filled with "comfortable" things. If it stretches, I own it!

My young adult children were home for Christmas and while folding laundry, I was grimly reminded of just how far my slide from comfort to style has taken my, let's just say that my innerwear, compared to my daughters are….uninspired. I haven't stepped into a Victoria Secret in ages and it shows. Instead my roomy stretchy bloomers come in a pack of 3 right off the Costco shelf. I assure you these comfy but dull garments have not always been at home in my drawers. Nor have my current winter combat gear of flannel jammies and wool socks. These garments are now a lifestyle. I don them every evening at 7:30 beginning in December all the way through March or April.

But style isn't the only thing that has been sacrificed for comfort in my life. Compared to the old days my husband and I have become social recluses. One night over the Holidays the door bell chimed at 11:00PM and the kids thundered down the stairs to go out and party. My husband and I were sprawled on the couch in our elastic waist flannels reading or watching a movie and kids paused to say good night with what appeared to be pity in their eyes. Upon further reflection, I realized it was not pity they felt for dear old Mom and Dad, it was resignation; they know on some primal level that someday in a not too distant decade they too will surrender to comfort.

And the younger spirited adventurous woman who walked miles in those spiked heeled boots. She is alive and well; just a whole lot more comfortable.

STEROID MYOPATHY: A DIFFERENTIAL DIAGNOSIS CHALLENGE

Lucy Jones, PT

Myopathy is a muscle fiber disorder that can occur from a variety of sources.[1] It is a nonspecific muscle weakness usually classified as either hereditary or acquired. The pathogenesis of hereditary inflammatory myopathies is currently thought to be modified by the immunological responses that can be triggered in genetically susceptible individuals or by environmental factors. Acquired myopathies, such as steroid induced myopathy, can be variable in symptoms, onset, and presentation depending on the underlying cause.[2]

CLINICAL MANIFESTATION

An individual receiving therapeutic doses of steroid containing compounds may demonstrate related muscle changes of atrophy, hypertrophy, abnormal muscle stretch response, weakness, hypotonia, myotonia, and or gait abnormalities. Type I muscle fiber atrophy has been noted in hereditary conditions such as myotonic dystrophy, and diseases with fiber type disproportion. Type II fiber atrophy is seen more in disorders such as myasthenia gravis, those with general deconditioning, alcohol or drug induced myopathies, including steroids,[1] which is the emphasis of this review. Effective therapy for steroid myopathy remains minimal. At present, anti-inflammatory agents have not been clinically helpful in the resolution of steroid myopathy.[2]

Drug induced myopathy usually develops insidiously. The clinical onset can occur anywhere from days to months after initial exposure to the causative medication. Patients present with nonspecific complaints of muscle pain, progressive generalized muscle weakness or fatigue. Muscle weakness of proximal arms and legs is the prominent diagnostic symptom. This weakness may range from mild to moderate, either with or without myalgia, to severely debilitating quadriplegic weakness. In the most severe cases, drug induced myopathy can lead to acute massive muscle injury which then may lead to myoglobin uricacute renal failure. Even with this severity, the condition can usually be reversed if treated promptly after symptom onset if there is an immediate cessation of steroid medication causing the myopathy.[3]

During the early stages, muscles may be acutely inflamed and painful to touch and mobility. Easy fatigability and muscle weakness can eventually compromise daily activity. Other early symptoms can include fever, fatigue, morning stiffness, and anorexia.[2]

A DIFFERENTIAL DIAGNOSIS OPPORTUNITY

Muscle weakness and myopathy can eventually compromise aerobic capacity, and exercise may be less possible as the muscle condition weakens. The difficulty with the differential diagnosis of steroid myopathy is the steroid medication that is symptom producing is often prescribed as a therapeutic dose in conditions such as Rheumatoid Arthritis and Systemic Lupus Erythematosis. The joint pain and discomfort relief eases mobility and the person often feels better with a steroid medication. However, in the case of steroid myopathy, if an individual taking a steroid medication begins to feel weaker, simultaneous involvement of peripheral proximal muscular changes can lead to a challenging diagnosis of the cause. This would require an assessment for the removal of a pain and symptom relieving medication due to this severe adverse life threatening condition, with the potential side effects of the steroid therapy rendering the patient weaker than when they began the medication.[4]

The diagnosis of myopathy may be overlooked initially because symptoms at onset can be mild and nonspecific. Corticosteroid therapy for pulmonary medical conditions and joint pain from autoimmune diseases have been quite effective in symptom reduction for those diagnoses. Muscle strength when measured both proximal and distally reveal an inability to overcome resistance. The presence of absence of hypoactive deep tendon reflexes is not a difenitive sign of steroid myopathy because either can occur. EMG findings may indicate a reduction in myoelectrical activity or abnormal spontaneous activity. Nerve conduction studies can also be performed to assess for coexistent neuropathy of the muscle at the axonial junction. An EMG will confirm the diagnosis of drug induced myopathy. The onset of steroid induced myopathy can be seen in the acute patient setting, and may be insidious in the out patient clinic. If it remains undiagnosed, it can be associated with a high incidence of morbidity due to the incidence of myopathy superimposed on other comorbidities.[5]

The underlying steroid-induced myopathy associated with the chronic use of corticosteroids for immunocomplex disorders is a non-necrotic atrophic myopathy, which results in proximal muscle weakness without the pain or tenderness. Early recognition of proximal weakness in steroid induced myopathy is important in the patient's medical management. The early clinical features can depend on the causal agent, but early detection can result in timely prompt medication alteration. In addition to muscle myopathy, kidney and pulmonary functions may be altered as has been previously stated. Drug induced myopathy can lead to acute massive muscle injury which then may lead to myoglobin uricacute renal failure and reduced thoracic muscular mobility.[1]

INTERVENTION

Physical therapy can assist with pain management, joint protection, muscle performance, improved motor function, and mobility;[6] and can as an adjunct to medications that are monitored and modified by the physician to attain optimal pain relief within the therapeutic levels tolerated by the patient.

In a study by Uchikawa, et al., 8-week old male rats were divided into 4 groups; (1) a control group, (2) steroid only group, (3) moderate exercise

and steroids, (4) high intensity exercise and steroid group. Five weeks following steroid injection into the soleus muscle, in the rats with steroid induced myopathy, moderate intensity exercise caused muscle atrophy changes. The muscle fiber type changed from type II- fast twitch fibers to type I- slow twitch fibers in the moderate exercise and steroid group.[7] Strength training requires diligence and persistence in individuals with steroid myopathy. Initial strength training tolerance can be 5 to 10 minutes at a time with resting intervals in between to repair muscle fiber function that quickly fatigues, slowly building up endurance for activity.[1]

CASE REPORTS

Case #1

A 64-year-old woman with prolonged Systemic Lupus Erthymatosis (SLE) and rheumatoid arthritis was admitted to a skilled nursing facility after having become weaker following a hospital admission and assessment for low back pain. This 64-year-old woman presented years older than her stated age. Her low back pain radiated into her lower abdomen with a history of narrowing of L3 and L4, with end plate sclerosis; narrowing disc space at C3-7; and osteopenia with lumbar and thoracic pain. The patient had been diagnosed with rheumatoid arthritis 5 years previous, and had not been out of bed in 3 weeks. Her proximal lower extremity weakness was thought to be due to deconditioning from her immobility from her low back pain as diagnosed by her rheumatologist. Upon medication review by the Medical Director of the facility, Plaquenil, a medication for advanced rheumatoid arthritis, had been given to her as an adjunct to her steroid regimen for reduction of her joint discomfort symptoms. She had no low back pain supine, only while spinal weight bearing. There were 2 skin ulcers on her right ankle and one on her left heel. The patient stopped taking her pain medication due to the side effects of bruising easily and purplish skin, from the Plaquenil. She refused narcotics, Darvocet, because she said that it made her "loopy" and feared that one more medication could give her additional side effects than she was already experiencing.

The medication that should have made the patient better was impairing her as she developed osteopenia, purple leg color, proximal lower extremity weakness, and chronic skin ulcers. Her physician removed Plaquenil from her regimen, and the patient used a Lidocaine 5 mg. pain patch on the length of her lumbar spine. The patient agreed to a trial run of the patch to see if she could get out of bed and try sitting in a wheelchair to see if pain relief could be accomplished and function improved. Muscle strength slowly increased to allow assisted transfers and functional standing for return to her apartment in a senior citizen's complex within 3 months, using a scooter for mobility as she had before this episode.

Case #2

A 41-year-old woman with immunoglobumin deficiency was receiving weekly IV infusion for the past year. She was sent to the Emergency Room with respiratory distress following her weekly home infusion, receiving imaging and lab tests. She could not have a muscle enzyme test to confirm a potential diagnosis of Dermatomyositis due to the concurrent muscle inflammation. Her strength was declining and her condition failing over a 1-month period. The diagnosis of Multiple Sclerosis (MS) was given within a few days following an MRI and CT scat and tests continued. Her medication for her immunoglobumin disorder was modified due to the new diagnosis of MS. She began to regain her strength slowly. She was given the revised diagnosis of steroid myopathy. Over a 2-month period, with physical and occupational therapy, she has gone from 3-/5 strength in her upper and lower extremities to 4-/5 strength, walking with a rolling walker initially to walking with a straight cane. After 4 months of physical therapy, she was independent in all areas, and relieved that the diagnosis was "only" steroid myopathy rather than other degenerative neuromuscular diagnoses that scared her initially.

CONCLUSIONS

Potentially beneficial corticosteroids can have a great impact on the body making the very cure become a curse. Steroid use can cause a beneficial decrease in inflammation, in addition to having destructive effects on supportive tissues. High doses of steroid containing compounds can cause a general breakdown in skin, bone, and muscle structures. These effects are frequently exacerbated by the inability to eat, decreased mobility, and effects of aging.

Bone density reduction, hypertension, and the immunosuppressive effects of prolonged glucocorticoids increase the possibility of infection. Physical therapists treating patients on an extensive regimen of steroids must be cautious about exposing these patients to potential sources of infection, also being watchful for mood changes, and the evasive steroid myopathy.[8] If these patients show a decrease in muscle strength rather than an expected increase in muscle strength and function with physical therapy, reasonable causes need to be investigated, including steroid myopathy. The weaker the muscles become and the longer the diagnosis is delayed, the more protracted the recovery.[1] Staying alert to the signs and symptoms of muscle loss and wasting can be essential to appropriate diagnosis and patient rehabilitation and recovery.

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COMBINED SECTION MEETING 2009
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CSM 2009 promises to be another great event you will not want to miss. Between the outstanding programs and the fun social interactions, you can be sure to find someone to mentor you or that you can mentor to bring greater professionalism and PT interventions to our ever growing field of geriatric physical therapy. You will be able to go back into your clinic or academic setting with new knowledge to share with others.

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CSM is expected to set another record for attendees. What a great way to meet other therapists or connect withold frineds. However, due to this high number of attendees, you will want to make sure you get to your education sessions early to guarantee a good seat. The sessions are filled with excellent speakers and topics so we can expect crowded rooms.

–BE EARLY AND BE EDUCATED!

REMEMBER that CSM 2009 opening ceremonies are on Monday, February 9th and the conference ends on Thursday, February 12th. The Section Preconference courses will be Sunday and Monday, February 8th. Below are details on the Section activities, social and educational sessions.

SEE YOU THERE!

CSM 2009 ◈ PROGRAM SCHEDULE

Sunday — 2/8

Preconference:
Clinical Residency 101 **12 Noon – 6:30 PM**

Monday— 2/9

Preconference: Advanced Mentoring

Preconference: Medical Malpractice: From Beginning to Trial (discuss and mock trials)

Tuesday— 2/10

7:00 – 8:00 AM - GCS and Newcomers Breakfast: Every member is invited to join us to congratulate the newly certified/recertified GCS and welcome first time CSM attendees.

10:30AM – 12:15 PM - Update on Normal Pressure Hydrocephalus: Medical and Therapeutic Interventions

12:30 PM – 2:15 PM - Clinical Exam and Evidence-based Interventions to Improve Gait in Older Adults

2:30 PM – 4:30 PM - Maximizing Skill Development in Cognitively Impaired Patients

6:30 PM – 7:00 PM - Balance and Falls SIG meeting: All members are welcome, then stick around for the Balance/Falls programming to follow:

7:00 PM – 9:00 PM – Paying Attention: Making Choices/The Role of Cognition in Falls Prevention

Wednesday— 2/11

7:00 AM – 8:00 AM - Osteoporosis SIG meeting: All members are welcome, then stick around for the Osteoporosis Programming to follow:

8:00 AM –11:00AM - Skeletal Effects of Exercise/ Mechanical Loading Across the Lifespan

Wednesday— 2/11 ...cont.

8:00AM–11:00AM - Platform Presentations: Hear About the Latest Research in Geriatric PT

1:00PM–3:45PM - Cultural Considerations for PT Interventions for Postpolio/Post Stroke in US and Developing Countries

1:00PM–3:45PM - Student Forum: Working with Older Adults can be Fun: This is a great opportunity for students to meet our Section leaders, learn about the various practice settings for the Geriatric PT, and win prizes.

4:00PM–5:30PM - How Does this Study Apply to MY Patients?

4:00PM–5:30PM - Continence and Active Aging; They Can Coexist

5:30PM–9:00PM Members Meeting/Awards Ceremony and Celebration: All members welcome.

Thursday— 2/12

7:00AM – 8:00AM Health and Wellness SIG Meeting: All members are welcome, then stick around for the Health and Wellness programming to follow:

8:00AM–11:00AM The Role of Physical Therapists in Evidence-based Health Promotion: The NCOA-Funded Chronic Disease Self Mgt Program

8:00AM–11:00AM Platform Presentations: Hear About the Latest Research in Geriatric PT

1:00PM–2:45PM FUNctional Evidence: New Approaches to Functional Therapy

3:00PM–4:45PM Alzheimer's Disease and Exercise: Evidence and Anecdotes

3:00PM–4:45PM Physical Therapy Management of Nutritional Deficits in the Older Adult

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"A moment's insight is sometimes worth a life's experience."

– James A. Garfield

CSM 2009
Preconference Courses: Section on Geriatrics
Mentoring the Clinician Beyond Entry-Level: Skills, Knowledge, and Behaviors for Successful Residency and Fellowship Mentoring

MONDAY, FEBRUARY 9, 2009,
8:00 AM–4:30 PM
7.5 Contact Hours

PRESENTERS:
Carol Jo Tichenor, PT, Ivan Matsui, PT, FAAOMP
Gail M. Jensen, PT, PhD, Didi Matthews, PT, DPT, NCS

Professional competence goes well beyond technical skills. Competence builds upon a foundation of clinical skills, scientific knowledge, 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 skills necessary for residency and fellowship mentoring and an opportunity to apply those skills in interactive problem-solving situations.

Cosponsored by the following APTA sections: Acute Care, Federal Physical Therapy, and Women's Health. Members of the Section on Geriatrics and all cosponsoring sections register at a discount.

This 7.5-hour course is directed toward academic and clinical educators who are currently teaching in or considering developing residency and fellowship programs. The course will 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, strategies for planning remediation sessions, methods for facilitating communication between faculty members and between faculty and residents, and assessment of the effectiveness of mentoring experiences.

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

- **Compare and contrast the characteristics of a good mentor and relate to one's own clinical teaching experience.**
- **Analyze and structure mentoring experiences to facilitate reflective thinking and enhance clinician growth.**
- **Guide the resident in implementing strategies for change.**
- **Design activities for developing and evaluating mentoring skills for new and experienced faculty members.**

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