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IN THIS ISSUE

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January 2013 VOL. 20, NO. 1

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Contact Melanie Sponholz, GeriNotes Editor
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PRESIDENT'S MESSAGE: RETREAT

William H. Staples, PT, DHS, DPT, GCS, CEEAA

The Chinese have a proverb "may you live in interesting times." Well, we are certainly living that in regards to health care reform. With the re-election of President Obama and a split Congress, we will most certainly be seeing the Affordable Health Care for America Act (ACA, "Obamacare") (HR 3962) take shape within the next year. Prognosticators on both sides of this issue have issued dire warnings of what might or might not happen. Does the bill go too far or not far enough? How this will that affect physical therapists and the services we provide to our patients and clients is unclear. Will presently uninsured people now be able to receive physical therapy or will there be limitations? Will any new insurance exchanges be able to make payment equivalent to what we currently receive? Will Medicare cuts to pay for the ACA affect physical therapy services? Can we reduce the burdensome regulations? I have worked hard to educate myself about the ACA, but have come to realize that at this time a crystal ball might be the best tool. Add to all this the MedPAC recommendations reducing the therapy cap from $1,880 to $1,270 (still combined with speech therapy), adding hospitals permanently to the cap regulations, and increasing the Multiple Procedure Payment Reduction rates will make providing necessary care difficult. But physical therapists have proven in the past to be resourceful and creative in treating people under our care, and I expect this to continue.

On a possible good note, most of us have seen the news that thousands of individuals with chronic conditions and disabilities (eg, Parkinson disease, Alzheimer disease, multiple sclerosis, etc.) may find it easier to qualify for Medicare coverage for home health care, skilled nursing home stays, and outpatient therapy. In a proposed settlement of two nationwide class-action lawsuits, Health and Human Services has agreed to scrap a decades-old practice that required many beneficiaries to show a likelihood of functional improvement in order for Medicare to reimburse for therapy services. This is a significant change in Medicare coverage rules. Under the agreement, Medicare will now pay for skilled services if they are needed to "maintain the patient's current condition or prevent or slow further deterioration," regardless of whether the patient's condition is expected to actually improve, as is the case in many of our patients. However, the ruling does not change the expectation that the services provided and billed must be skilled. If the maintenance services provided are not "so inherently complex that it can be safely and effectively provided only by, or under the supervision of professional or technical personnel as provided by regulation," they will not be qualified as "skilled." When the services needed do not require skilled care because they could safely and effectively be performed by the patient or unskilled caregivers, such services will not be covered under the OP, SNF, or HH benefits. In other words, could a non-therapist provide the same service? Proving otherwise will require even more clear, concise, and focused documentation.

Currently, neither the Medicare law nor regulations technically require beneficiaries to show a likelihood of improvement. But, some provisions of the Medicare manual and guidelines used by Medicare contractors establish much more restrictive standards. These standards state that coverage should be denied or terminated if a patient reaches a plateau or is not improving or is stable. In most cases, the contractors' decisions denying coverage become the final decisions of the federal government. Additionally, Congress has set a cap on therapy benefits and a threshold for prepayment approval that are quite specific, and these have not been eliminated.

At present, there have been no official changes in Medicare policy, and contractors have not yet changed the rules by which they apply their payment policies. Physical therapists implementing the intent of the agreement that is the result of this lawsuit, before the rules and mechanisms are put into writing, may be at risk for nonpayment. Those of you who are familiar with the workings of the Washington bureaucracy will realize that many times these policy changes progress at a glacial pace. Unless your organization is able to tolerate claims denials or is willing to spend time battling denials in court, the Section suggests a wait and see attitude at this time before changing your current operations in regard to payment issues for those individuals with chronic conditions and disabilities. The settlement is only "proposed" at this time and there are still lots of unknowns in terms including a probable CMS strategy to curb utilization.

The potential additional cost to the Medicare fund could be staggering, so if this proposed settlement is approved by the court, we might expect CMS to intensify its focus on whether or not what is provided under "maintenance" is truly "skilled." Regardless of who won the election, Medicare expenses are an area of huge concern when looking to balance the budget and may undergo changes regardless of the election outcome.

The Section on Geriatrics will continue to collaborate with APTA in our joint efforts to ensure access to appropriate physical therapy services for an aging population. We will work closely to analyze the proposed settlement for potential impact on Medicare policies regarding the reporting of functional limitations on the claim for outpatient therapy and the requirement to complete a functional reassessment at defined intervals under the Home Health Part A benefit. The Section on Geriatrics in association with APTA plan to actively engage and educate its members to ensure proper understanding and application of the newly revised Medicare and ACA regulations as they occur.

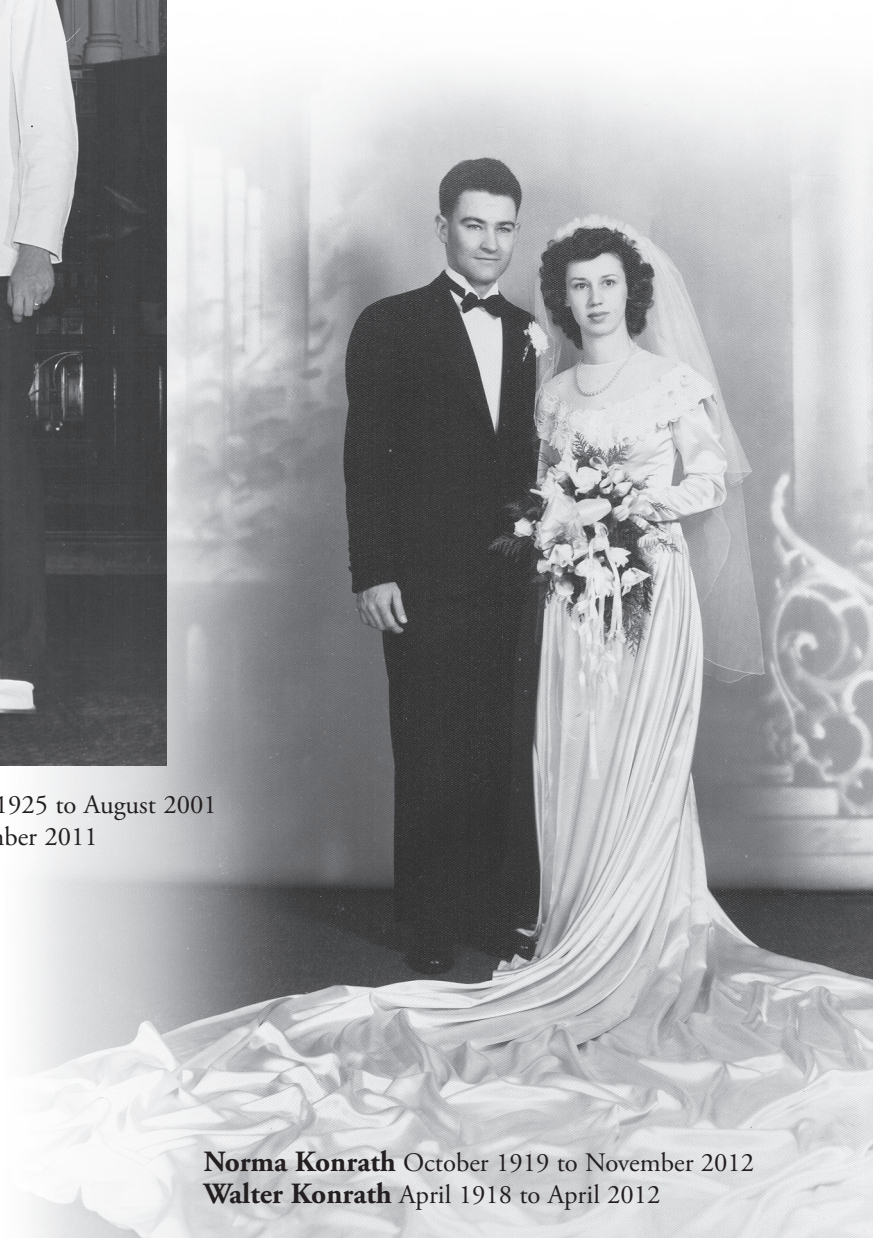
I hope to see many of you at CSM in San Diego where the Section will be celebrating its 35th anniversary. We have invited all of the previous Joan Mills' award winners and former Section Presidents to join us for the celebration. We are living in interesting times!

EDITOR'S MESSAGE

Melanie Sponholz, MSPT, GCS

I would like to dedicate this issue of *GeriNotes* to the memory of my grandparents, in appreciation for the incomparable example they set with their lives. I hope I can follow their lead. They are remembered and missed every day.

Dorotha "Dot" Roth Wilson December 1925 to August 2001
Preston "Bud" Roth April 1923 to September 2011



Norma Konrath October 1919 to November 2012
Walter Konrath April 1918 to April 2012

EXERCISE AND CANCER IN THE OLDER ADULT

Judith R. Gale, PT, DPT, MPH, OCS

INTRODUCTION

According to the American Cancer Society, there are more than 12 million people living with cancer or with a history of cancer. The mean age at diagnosis is 66 years. In 2012 over 1.5 million people are expected to be diagnosed with some form of cancer. Approximately 67% will survive, and the number of survivors is increasing with advancements in screening, early diagnosis, and treatment.[1,2] Because of the increasing number of cancer survivors, there is keen interest in what can be done to decrease fatigue and improve physical function, strength, and quality of life. There is significant evidence that exercise of various types can reduce the risk of developing some kinds of cancer such as colon and breast cancers and is possibly linked to a decreased risk of endometrial, prostate, and lung cancers as well.[3-5] There is also increasing evidence that physical activity can decrease some of the adverse effects of cancer treatments. If exercise is helpful in decreasing cancer risk and in the management of the effects of cancer treatment, several questions arise:

1. When should exercise be initiated?
2. What things should be considered when prescribing exercise?
3. What types of exercise are appropriate?
4. How much exercise should be prescribed?

WHEN SHOULD EXERCISE BE INITIATED?

Courneya and Friedenreich have proposed a framework to address physical activity and cancer, the Physical Activity and Cancer Control (PACC) framework. They suggest there are 6 time periods to consider: prediagnosis, screening, pretreatment, treatment, survivorship, and end of life. At each stage they recommend physical activity, although the goals and outcomes for each stage are different. In the prediagnosis stage, physical activity can reduce the risk of developing certain cancers, and might facilitate earlier screening, as those who engage in healthier lifestyles might be more adherent to screening recommendations. In the pretreatment stage, physical activity may improve health and fitness to a degree that will enhance treatment tolerance. Physical activity during treatment may help to maintain function, strength, and quality of life and possibly improve chemotherapy completion rates. During survivorship, activity plays several roles. It may help improve general health, strength and endurance, and enhance quality of life. It may slow functional decline with aging. It may decrease the risk of cancer recurrence or of developing other chronic diseases, thus prolonging life. Using the PACC framework, some sort of physical activity is recommended in all stages of the cancer continuum.[5]

Other recent research shows that individuals who have already been diagnosed with certain types of cancers show improved strength, mobility, function, and decreased fatigue with regular exercise. These changes can lead to improved quality of life.[6] There have been many studies of women with breast cancer looking at the influence of exercise on physical well-being during and after treatment for cancer. These treatments included surgery, chemotherapy, radiation, and hormonal therapies. Adverse effects of these treatments have been reported as fatigue, decreased function, deconditioning, depression, and lymphedema.[7-9] Courneya et al studied a group of 242 patients with breast cancer at the initiation of their chemotherapy treatments. They were divided into 3 groups: usual care, supervised aerobic training, and supervised resistance training. The usual care group did not change their typical routines; the aerobic training group used a treadmill, cycle ergometer or elliptical equipment 3 times per week; the resistance training group performed 8 to 12 repetitions of various upper and lower extremity resistive exercises 3 times per week. The exercise groups began slowly and gradually increased duration and intensity of their routines. Both of the exercise groups improved in measures of self-esteem; the aerobic group maintained aerobic fitness; the resistance group increased muscle strength and lean body mass. Changes among the exercisers in depression, fatigue, anxiety, and quality of life, while positive, did not meet statistical significance. There were no reports of lymphedema. This study concludes that exercise is safe and should be considered for patients receiving chemotherapy for breast cancer.[7]

Other studies have looked at exercise and prostate cancer. Interestingly, the main cause of death in prostate cancer survivors is cardiovascular disease. Therefore, it is a logical assumption that some form of aerobic exercise would be beneficial to men with prostate cancer.[5] Evidence is strong that exercise is safe, improves cardiovascular endurance, and increases strength in this patient population.

Whether or not these studies are generalizable to other types of cancer is unclear. However, there is agreement that some activity is preferable to no activity for everyone with cancer, and at every stage of the disease.[5]

WHAT THINGS SHOULD BE CONSIDERED WHEN PRESCRIBING EXERCISE?

In a recent publication by the American College of Sports Medicine, a panel of experts has identified several areas to be considered when prescribing exercise to patients with cancer. Of concern are the adverse effects of the cancer treatments (surgery, chemotherapy, radiation). Of particular concern are cardiovascular and pulmonary impairment, diminished cognitive ability, balance changes, and decreased bone mass. When the therapeutic agents are likely to cause any of these things, it is advisable to get medical clearance before beginning an exercise program.[6] All these impairments are also the result of the normal aging process, so when working the older patients with cancer, these should be carefully assessed before starting a new physical activity program. An in-depth description of the effects of the therapeutic techniques, medical assessments, exercise prescription, and physical activity guidelines is presented in Schmitz et al.[6]

The safety of physical activity for those with cancer and the older popula-

tion in general has been well established. The patient's prior level of function, current health status, goals, and barriers to exercise should all be considered when developing an exercise program.[6-11]

WHAT TYPES OF EXERCISE ARE APPROPRIATE?

In general, the type of exercise to be prescribed depends on what impairments and functional limitations are present in the patient. All exercise programs should be individually tailored. There is no set of exercises appropriate for all older individuals with cancer. Typically a mix of strengthening, aerobic, flexibility, and balance exercise is used. The ACSM recommends that only one type of exercise be implemented initially. This helps decrease confusion and allows the patient to adjust to the new routine before adding in other components.[11] Table 1 suggests some exercises and activities that might be appropriate for beginning exercise training in older adults with cancer.

HOW MUCH EXERCISE "SHOULD BE PRESCRIBED?

Like the type of exercise, there is no simple answer to this question. It must take into consideration the patient's current status and what goals are set for the program. Typically the exercises should start with just one type of physical activity, with short duration, low intensity, small number of repetitions, and little resistance. Some proposed goals and suggested progressions are presented in Table 1.

SPECIAL CONSIDERATIONS

There are some forms of cancer that, by the nature of the cancer itself, by the therapies used to treat it or by the sequelae of the cancer and its treatment, should be given special considerations. The special cases presented here will include breast cancer, fatigue, bone fragility, and palliative care.

The concern with exercise and breast cancer arises from the fear of developing postoperative seroma, hematoma, and possibly lymphedema following radical or modified-radical mastectomy. Recent studies have found that gentle ROM, initiated on the first day postoperatively, does not lead to these adverse effects as the ROM exercises gradually increase in range and progress from active and active-assisted to passive.[12-15] Cinar et al recommend beginning on the first day with exercises for the elbow, wrist, and hand of the involved arm and progressing to the shoulder by the third day. This study found increased functional use of the arm and no significant increase in lymphedema or other complications of surgery.[12]

Fatigue is a major side effect of both radiation and chemotherapy. It is often accompanied by sleep disturbances and depression. Recently a study was done looking at the role of home exercise for cancer-related fatigue during and after chemotherapy and/or radiation. Outcomes of this study showed that fatigue increased with the onset of the cancer treat-

Table 1. Sample Exercise Type, Activity, Intensity/Duration, and Frequency for Older Individuals With Cancer

Type of Activity	Initial State		Goals
	intensity/ duration	frequency	
aerobic walking stationary bike elliptical	begin 5–10 min/session	RPE* 12–14	60 min/week RPE 15–17
strengthening Theraband free weights pneumatic equipment	60% 1RM**	2–3 times/week	70–80% 1RM 3 times/week
flexibility stretching slow AROM	15 second hold	2–3 times/week	60 second hold 3 times/week
balance narrow base of support tandem stance compliant surface eyes closed	10–15 seconds; hold onto kitchen sink	2–3 times/week	60 seconds without support 3 times/week

*RPE Rate of perceived exertion, scale 6-20
** 1RM One repetition; or what can be lifted 12-15 times before fatigue
Adapted from ACSM's Resource Manual for Guidelines for Exercise Testing and Prescription. 6th ed. Philadelphia, PA: Wolters Kluwer/Lippincott Williams & Wilkins; 2010.

ments, and then decreased over time. The authors concluded that while no significant differences in fatigue levels were found between the exercising groups and the non-exercising group, there were no adverse effects of the exercise and it was well tolerated. Timing of introduction of the exercise programs is an area that needs further study, but exercise appears safe.[16]

Fragility of bones in those with bony metastases and in individuals with multiple myeloma is a definite area of concern for the patient and the clinician. While weight-bearing exercise may not be recommended for those with spinal or lower extremity involvement, strengthening exercise might help build lean muscle mass. If the individual is cleared for a walking program, it should be initiated to maintain bone strength. Coleman et al performed a pilot study of home-based strengthening exercise for patients with multiple myeloma who were receiving high-dose chemotherapy and stem-cell transplants. The program consisted of walking and strengthening exercises for the upper and lower extremities using body weight and elastic bands. The exercises were individualized and adjusted based on the health of the subject with progression of the cancer-related therapies. Results of the study demonstrated increased strength, decreased fatigue, improved mood, fewer sleep disturbances, and maintenance of lean body weight. Furthermore, "none of the patients injured themselves."[17]

A provocative editorial in the *Journal of Palliative Medicine* speaks to the need for exercise as a form of palliative care for those with incurable cancers and those in hospice care. Eyigor argues that function is of great importance in improving quality of life, promoting sleep, decreasing fatigue, and lending the patients a sense of "wellness and respect."[18] He states that while quality of life declines with decreasing life expectancy, exercise prolongs the sense of well-being. These exercise programs should be individually crafted and could include both strengthening exercise and aerobic activities.[18]

CONCLUSIONS

Physical activity is safe and appropriate for older adults with cancer. In all stages of the cancer continuum, some type of activity can be performed. Studies of various outcome measures have established that exercise can increase strength, improve endurance and function, enhance quality of life, and even prolong life. As most of the research on exercise and cancer has been done on colon, prostate, and breast cancer, more research is needed to look at outcome measures of less common forms of cancer. There appears to be some generalizability, however, and some form of physical activity is recommended for all older patients with cancer.

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Judy Gale received her MA in Physical Therapy from Stanford University, her MPH in Epidemiology from the University of Alabama at Birmingham, and her DPT from Creighton University. She is currently Associate Professor in the Department of Physical Therapy at Creighton University in Omaha, NE. She teaches in the areas of Musculoskeletal PT and Differential Diagnosis and is a mentor in the Orthopedic Residency at Creighton.

A MULTIDISCIPLINARY FALL MANAGEMENT PROGRAM DESIGN USING HOME HEALTH FOR ELDERLY RESIDENTS WITH DEMENTIA RESIDING IN AN ASSISTED LIVING SETTING

Shawn Arrington DeVol, PT, DPT

ABSTRACT

Background and Purpose: This report describes the development of a multidisciplinary fall management program designed specifically for assisted living residents with a diagnosis of dementia and a history of falls. The program began its focus with one assisted living community in Columbus, Ohio. The program required collaboration between home health services and the assisted living facility staff in order to reduce the frequency of falls. This was accomplished through monthly intervention meetings, staff education in-services, as well as the introduction of numerous individual care plan modifications in order to properly manage intrinsic and extrinsic factors that were contributing to patient falls. **Objective:** The primary objective of this program was to develop a template for use in several assisted living communities in a collaborative effort as a means to improve the safety and reduce fall numbers in those communities as their acuity levels continued to rise. **Discussion**: The implementation of this program has greatly reduced the number of falls in several communities. A case study was performed on one resident, which serves as a template for proper team coordination. The patient completed 8 weeks of physical therapy treatment combined with team intervention to control extrinsic and intrinsic variables to reduce fall frequency within the assisted living facility. The patient experienced zero falls during the intervention period. Continued research is needed on the impact of a multidisciplinary approach to fall management with dementia residents in an assisted living environment using home health.

INTRODUCTION

The frequency of falls and fall-related injuries continues to rise as the aging population increases. More than one-third of US adults 65 years of age and older fall each year.[1] Allan et al concluded that older people with dementia experience 8 times more incident falls than those without dementia.[2] The annual incidence of falls in this population is about 70% to 80%.[3] Falls are an important cause of morbidity and mortality in older people with dementia. Those with dementia may have impaired abilities to communicate, which could cause an inability to ask for assistance. They also may fail to comprehend and recognize potential dangers in their environment and forget their need for assistive devices and/or supervision with ambulation.[4] It is estimated that by 2020 there will be 42 million people worldwide with a diagnosis of dementia.[2]

Evidence suggests that there is a dynamic interaction between intrinsic and extrinsic factors that contribute to falls in the elderly, thus demonstrating a need for a multifactorial approach in prevention.[5] Tinetti and colleagues have shown that this multifactorial approach has been successful in reducing fall frequency in community dwelling elderly.[6] However, only limited evidence is available for effective fall prevention in nursing home residents who are approximately 3 times more likely to fall than their community dwelling peers.[7] Even fewer studies have been conducted on fall management/prevention strategies for those with dementia in an assisted-living environment.

An assisted-living environment provides care for residents who need assistance with activities of daily living yet wish to remain as independent as possible. Paid services include bathing, toileting, grooming, dressing, and supervision with ambulation. Many offer other amenities such as outdoor gardens, exercise rooms, recreational rooms, and libraries.[8] It is estimated that one million Americans currently reside in assisted living facilities.[8] The incidence of falls has risen dramatically in these communities due to the higher acuity level of its residents, an increase in residents with some level of cognitive impairment, and the addition of medical model care that provides nursing staff within the facility. These facilities often offer nursing care 24 hours per day, with LPN and RN employees. State laws do regulate the amount of skilled nursing services these facilities can provide.

Licensed home health agencies provide skilled services including nursing, physical therapy, occupational therapy, speech therapy, licensed social workers, and home health aides. These licensed agencies not only provide care in patient's owned residences, but also to those residing in assisted living communities. As fall numbers continue to increase in these facilities, coupled with an increase in residents with a dementia diagnosis, home health agencies can play a vital role in managing and implementing crucial strategies using numerous skilled services that allow for an interdisciplinary approach to care.

As an owner of a home health agency and a practicing physical therapist, it has become evident that a strong collaboration between home health agency clinicians and assisted living staff is critical in the successful management and prevention of falls. An important component of this collaboration is to understand the dynamics of team building to enhance communication, clarify roles, and increase participation with all levels of staffing to ensure positive patient outcomes. Baxter and Markle-Reid identified numerous barriers and facilitators to teamwork in clinical settings[9] that will be discussed as part of this program.

Development of this program was the result of collaboration between my

home health agency, Select Home Care, and an assisted living facility (F.C.) in Columbus, Ohio.

BACKGROUND/METHODS

Fall Risk

In order to develop a multidisciplinary fall management program for a specific assisted living environment, it is important to clarify the definition of a "fall" and what factors can contribute to falls in the elderly. In this facility a fall is defined as "an unintentional coming to rest on the ground, floor, or other lower level."[10] Another definition describes a fall as "inadvertently coming to rest on the ground or other lower level with or without loss of consciousness or injury."[11] A history of falling is the most reliable predictor of future falls.[10] Yet, the fear of falling alone has been shown to cause people to self impose a decrease in activity levels that can lead to long term consequences with physical health and fall risk.[12] There are many intrinsic and extrinsic factors that contribute to fall risk. In an assisted living environment, it is critical to take into consideration all factors that can be modified in order to reduce an individual's risk for falling.

Intrinsic factors can include various conditions such as macular degeneration, cataracts, glaucoma, Parkinson disease, diabetes, stroke, degenerative joint disease, postural hypotension, various neuropathies, bladder dysfunction, muscle weakness, pneumonia, and cognitive impairments, including all types of dementia.[10] These conditions can alter the ability to safely function due to resulting gait and balance disruptions, decreased strength, poor cardiovascular endurance, decreased depth perception and visual acuity, as well as poor safety judgment, all which could lead to an increase in fall risk.

Medications are also a significant risk factor for falls. Those medications that act on the central nervous system such as sedatives, tranquilizers, and other psychoactive drugs, as well as prescription pain medication, can cause a disruption in cognition and balance, thus contributing to an increased risk of falling.

Environmental factors, also known as extrinsic factors, account for up to 50% of falls among elders.[10] Important factors to take into consideration when assessing and recommending modifications are: furniture placement; bed height; seating height, including dining, lounging, and toilet areas; lighting quality, floor surfaces; phone and lighting placement; rugs; clothing placement; cabinet usage; pathway clutter; faulty footwear; type and appropriateness of walking aids; and lack of proper safety equipment, such as grab bars. In an assisted living environment, physical and occupational therapists can play a vital role in making proper adjustments to these extrinsic hazards in order to improve the safety and reduce the fall risk for residents.

Dementia

The number of individuals with a diagnosis of Alzheimer disease, or other forms of dementia, that reside in assisted living environments has increased. Smith et al stated that as many as 68% of assisted living residents living in the U.S. have dementia.[13] This has presented a challenge with maintaining the safety and independent function of those with cognitive impairments, and has also caused an increase in the number of falls assisted living facilities document each month due to the inability to control the extrinsic and intrinsic factors that may prevent such falls. Impairments in gait and balance in clients with dementia are also prevalent and partially attributed to central neurodegenerative processes with Alzheimer disease and vascular dementia.[13] According to The National Institute of Neurological Disorders and Stroke (NINDS) there are almost 7 million people with a diagnosis of some form of dementia in the United States.[12] Dementia is the decline in memory and other cognitive functions, in comparison with the patient's previous level of function, as determined by a history of decline in performance and by abnormalities noted from clinical examination and neuropsychological tests.[14] It is important to note that dementia is not a disease. Instead, it describes a collection of symptoms, most commonly memory loss, that generally occur together and can be caused by certain conditions.

There are many different types and causes of dementia. According to the National Institute of Health (NIH), Alzheimer disease is the most common cause of dementia. Other types of dementia include vascular dementia, Lewy Body dementia, and Frontotemporal dementia. It is critical for clinicians to take the necessary measures to obtain a correct and specific dementia diagnosis in order to make a sound judgment regarding prognosis and treatment options. Memory loss is the most common symptom of dementia, as well as language difficulties, poor judgment, and personality changes. The resulting short term memory loss, combined with poor safety judgment, often causes significant difficulties for those in an assisted living environment. There is often a decline in a resident's ability to maintain functional independence. These changes may also lead to an increase incidence in falls. This can be a source of frustration for families and caregivers in not only identifying these changes, but in making the necessary modifications to improve safety and quality of life. Many assisted living facilities offer specialized services for those with advanced levels of dementia. Residents who reside in these locked wings of the assisted living facility are often segregated from the main population as to allow for greater supervision and special services specific to those with cognitive impairments. These communities often provide an opportunity for an improved quality of life as the resident's dementia progresses.

Program Design

The assisted living community that participated in this program (F.C.) was located in Columbus, Ohio. It is a 66 bed facility that is staffed with one full time registered nurse (RN), two part-time RNs, 3 full- time licensed practical nurses (LPN), and 14 patient care assistants (PCA) that work over 3 daily shifts. This community offers a wide variety of assisted services. These include personal care services such as mealtime reminders; morning care with dressing, grooming, and personal hygiene; evening care; mobility assistance; medication management; morning and evening room checks; safety monitoring; socializing activities; and exercise classes 4 days per week. Other amenities in this facility include daily meals prepared by an on-site chef, housekeeping and linen services, 24-hour on-site security, emergency response pendant system, and scheduled transportation.

This facility had begun to experience an increase in the number of falls and an increase in the number of repeat fallers. Each new resident was screened for fall

risk using the Briggs® Fall Risk Assessment.[15] A standard incident report was being used consisting of date and time of fall, description of where the resident was found, if the emergency call pendant or light was used, any injuries noted or reported, as well as if ER transport was necessary. The family of each resident was notified of the incident by phone regardless if transport out of the facility was necessary. These incident reports were filed in a common log. Outside of this documentation, little further review or intervention was taking place. Over an 11-month period from January 2009 to November 2009 this facility had documented 88 falls. Of those 88 falls, 100% of the residents who fell had a dementia diagnosis. At the time of program initiation, the building had 51 residents with 35 of those residents having a diagnosis of dementia (69%). A standard approach to fall prevention and management was not being used. Frequent daily conversations consistently occurred between the patient care assistants, facility nurses, and home health agency nursing/therapy staff regarding patients with updates on their care program and progress. Verbal permission to conduct chart review and document patient outcomes was obtained through the owner/administrator of the facility. A positive working relationship existed for several years in this building between its staff and the home health agency.

In November 2009, the facility nursing staff was approached about development of a multidisciplinary fall management program consisting of monthly meetings and immediate implementation beginning November 2009. This monthly interdisciplinary team meeting included the assisted-living registered nurse, home health care physical therapist, facility patient care assistant, and facility activities director. The initial meeting included a description of the program and selection of a charting guideline and a preventative measures form to be used with each resident who had fallen (Appendix 1). During the first meeting an in-service was provided on the topic of team-building through communication. This in-service was provided by the Select Home Care physical therapist. The need to communicate effectively with all levels of staffing was critical to the success of this program. It is impossible for one discipline to adequately address and identify all client care issues and risk factors for falls.[8] The in-service addressed the need for each discipline to understand their role on the team as well as understanding the roles of other team members. Baxter et al stated that role clarity determines whether collaborations are successful.[9] The need for a common vision as well as the goal of positive resident outcomes were established. Assuring a non-threatening work environment and proper thoughtful communication strategies among all levels of staff helped to create a positive atmosphere where there was full participation. It is well-understood that those individuals who perceive their roles to be less valuable or to have less power and influence tend to be less cooperative about working in a team environment.[9] For this program, all team members provided input and assisted in making decisions with the goal of positive client outcomes. The implementation of this program relied upon this successful collaboration.

Following the communication in-service, a review of the previous 3-month fall history to identify all fallers, repeat fallers, and search for any patterns related to their falls took place. The fall incident report for each resident was reviewed and discussed. Using the Preventative Measures checklist (Appendix 1) as a guideline, modifications and interventions were established in order to reduce the number of falls for each resident. This checklist provided a systematic approach to organizing possible modifications. It included medication review, nutrition/hydration check, environmental check of resident's apartment for bed and furniture placement, pathway clearance, proper usage of call pendant, increased supervision with ambulation to meals and activities, toileting checks every two hours, possible durable medical equipment needs and/or changes, PT/OT screening, UTI screening, participation in activities, increased supervision, an increase in time spent out of room, and addition of care by staff for a.m. and p.m. services, including dressing, showering, and grooming. This list was not exhaustive, and often other interventions were suggested and implemented on an individual basis. Due to the high level (100%) of residents who had fallen and who also had a diagnosis of dementia, it was necessary to increase the input and involvement of the activities director. Many of the residents who had fallen had fallen in their rooms while alone. These residents also did not have the ability to recall instructions or make proper safety judgments, such as using the call pendant when needed. The need for additional daily supervision with an increase in cognitive stimulation provided several opportunities for

the activities director to implement programs designed for cognitively impaired residents. These included structured art and painting activities, pet therapy, music from local musicians, current events, reminiscing activities, visits to the on-site greenhouse, as well as walking and exercise groups. These changes to the plan of care were then documented on a single form (Appendix 2). This plan was immediately implemented across all disciplines. Subsequent monthly meetings were scheduled using the same model of care with assessment of improvement and prior interventions included. An in-service to the kitchen and office staff was also conducted by the Select Home Care physical therapist covering the topics of safety, fall prevention, proper transfer techniques, as well as correct patient handling to assure that all staff members knew how to assist the residents in and out of dining chairs, etc. A commitment to add a physical therapy screen to any resident who tested at a high risk for falls according to standardized Briggs facility assessment[15] upon either move-in or with quarterly reassessment was made between facility staff and the Select Home Care physical therapist. This program was used for all residents of the facility, regardless of their involvement with Select Home Care.

DISCUSSION

The purpose of this report was to describe and illustrate a multidisciplinary approach to fall management in an assisted living environment with clients who have been diagnosed with dementia. The fall management program resulted in a decrease in fall frequency for the facility through a coordinated effort using all staff members to increase residents' activity levels, modify living environments, increase times of direct supervision, as well as improving the use of proper cueing and transfer techniques by the facility staff. Critical to this multidisciplinary approach was the consistent focus on the monthly fall management meeting involving the facility team and home health agency. The use of exercise and physical therapy to improve a patient's strength, cardiovascular endurance, and balance in order to reduce their fall risk has been well researched. However, little research has been conducted on the benefits of those interventions on reducing falls in the elderly with dementia in an assisted living environment. Williams et al stated a clear benefit with physical activity with a reduction in symptoms of depression in patients with Alzheimer disease.[18] Aman et al also noted improvement with activities of daily living, decreased symptoms of depression, and decreased periods of agitation with a 3-week exercise program for patients with severe cognitive impairment.[19] By involving all staffing at the assisted living facility through proper communication techniques and education, as well as using home health care in a multidisciplinary collaboration, it was possible to improve resident function, reduce fall frequency, and create a positive approach to fall management. It is necessary to provide consistent monitoring of intrinsic and extrinsic factors that are contributing to fall increases in assisted living communities and make modifications on an individual case by case basis. The multidisciplinary fall management program continues at this facility and currently involves monthly monitoring of fall reduction numbers for repeat fallers, as well as fall reduction percentages for the entire facility population. This approach continues to be implemented in several assisted living communities and is routinely modified to best meet the needs of each building. In the future, research in the area of specific fall management programs in assisted living settings would be beneficial as resident dementia populations, acuity levels, and fall numbers continue to rise.

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Shawn DeVol is a licensed Physical Therapist, founder, and co-owner of Select Home Care, a Part A licensed Medicare full service agency in Columbus, Ohio. She obtained a B.S. in Education from Otterbein College in 1992. Deciding to pursue her passion, she earned a Master's degree in Physical Therapy from Andrews University in 1998. She also completed her clinical Doctorate in Physical Therapy from the University of Montana in 2010. Shawn's proactive approach to physical therapy focuses on wellness and prevention strategies for all of her clients, with an emphasis on fall management programs for the elderly in the assisted living setting.

Appendix 1

Appendix 1

High Fall Risk Residents
Charting Guidelines and Preventative Measures

Name:_____

- **PT/OT SCREEN REQUESTED**
- **DIETICIAN SCREEN FOR NUTRITIONAL NEEDS REQUESTED**
- **PHARMACY REVIEW OF MEDICATIONS TO BE PERFORMED**
- **PHYSICIAN FOLLOW-UP SCHEDULED**
- **SPECIALIST FOLLOW-UP NEEDED (IE) OPTOMETRIST**
- **ACTIVITY DIRECTOR NOTIFIED OF NEED OF INCREASED ACTIVITY INCLUSION**
- **CHECK FOR NEED AND/OR PROPER USE OF ASSISTIVE DEVICES**
- **ENVIRONMENTAL ROOM CHECK WITH NOTED MODIFICATIONS**
- **CHANGE OF ROOM LOCATION REQUESTED FOR CLOSER PROXIMITY TO NURSE'S STATION**
- **TRANSFER TRAINING FOR STAFF REQUESTED**
- **STAFF NOTIFIED OF NEED TO REMIND RESIDENTS TO USE AD**
- **PENDANT IN PLACE AND OPERATING PROPERLY**
- **CALL LIGHTS CHECKED**
- **ADD RESIDENT TO SUPERVISED LIST FOR TRANSFERS AND AMBULATION**
- **SCHEDULED TOILETING**
- **INCREASE FREQUENCY OF STAFF MONITORING TO EVERY ONE TO TWO HOURS**
- **BRING RESIDENT TO ONE OF COMMON AREAS FOR INCREASED SUPERVISION THROUGHOUT THE DAY**
- **INCONTINENCE CHECKS**
- **UTI SCREEN**
- **ADD TO AM/PM CARE FOR DRESSING/GROOMING/SHOWERING TASKS**
- **HOSPITAL BED REQUESTED FOR SAFETY**
- **INCREASE FLUIDS**
- **FAMILY NOTIFIED OF RISK AND IMPLEMENTATION OF SAFETY MEASURES**

Appendix 2

FALL RISK ASSESSMENT

INSTRUCTIONS: Upon admission and quarterly (at a minimum) thereafter, assess the resident status in the eight clinical condition parameters listed below (A-H) by assigning the corresponding score which best describes the resident in the appropriate assessment column. Add the column of numbers to obtain the Total Score. If the total score is 10 or greater, the resident should be considered at HIGH RISK for potential falls. A prevention protocol should be initiated immediately and documented on the care plan.

			ASSESSMENT DATE ▶				
	PARAMETER	SCORE	RESIDENT STATUS/CONDITION	1	2	3	4
A.	MENTAL STATUS	0	**ORIENTED** x 3 (time, place, person)				
		1	**DISORIENTED** x 1				
		2	**DISORIENTED** x 2				
		4	**DISORIENTED** x 3				
		4	**WANDERS**				
B.	HISTORY OF FALLS (Past 3 months)	0	**NO FALLS** in past 3 months				
		2	**1 - 2 FALLS** in past 3 months				
		4	**3 OR MORE FALLS** in past 3 months				
C.	AMBULATION/ ELIMINATION STATUS	0	**REGULARLY CONTINENT**				
		2	**REQUIRES REGULAR ASSIST WITH ELIMINATION**				
		4	**REGULARLY INCONTINENT**				
D.	VISION STATUS	0	**ADEQUATE** (with or without glasses)				
		2	**POOR** (with or without glasses)				
		4	**LEGALLY BLIND**				
E.	GAIT/BALANCE/ AMBULATION Indicate appropriate point value for each item that applies.	0	Gait/Balance normal				
		1	Balance problem while standing/walking				
		1	Decreased muscular coordination/jerking movements				
		1	Change in gait pattern when walking (i.e., shuffling)				
		1	Requires use of assistive devices (i.e., cane, w/c, walker, furniture)				
F.	SYSTOLIC BLOOD PRESSURE	0	**NO NOTED DROP** between lying and standing				
		2	Drop **LESS THAN 20 mm Hg** between lying and standing				
		4	Drop **MORE THAN 20 mm Hg** between lying and standing				
G.	MEDICATIONS		Respond below based on the following types of medications: Anesthetics, Antihistamines, Antihypertensives, Antiseizure, Benzodiazepines, Cathartics, Diuretics, Hypoglycemics, Narcotics, Psychoactives, Sedatives/Hypnotics.				
		0	**NONE** of these medications taken currently or within last 7 days				
		2	**TAKES 1 - 2** of these medications currently and/or within last 7 days				
		4	**TAKES 3 - 4** of these medications currently and/or within last 7 days				
		1	If resident has had a change in medication and/or change in dosage in the past 5 days = score 1 additional point.				
H.	PREDISPOSING DISEASES		Respond below based on the following predisposing conditions: Hypotension, Vertigo, CVA, Parkinson's disease, Loss of limb(s), Seizures, Arthritis, Osteoporosis, Fractures, Multiple Sclerosis.				
		0	**NONE PRESENT**				
		2	**1 - 2 PRESENT**				
		4	**3 OR MORE PRESENT**				
	TOTAL SCORE		**Total score above 10 represents HIGH RISK**				

ASSESS	SIGNATURE/TITLE/DATE	ASSESS	SIGNATURE/TITLE/DATE
1		3	
2		4	

NAME–Last	First	Middle	Attending Physician	Record No.	Room/Bed

BRIGGS Healthcare

FALL RISK ASSESSMENT

❑ Continued on Reverse

IPTOP—INTERNATIONAL CONFERENCE UPDATE APRIL 26 TO 28, 2013

Please Come To Boston In The Springtime…

Mark your calendars for **Friday April 26 – Sunday April 28, 2013,** and join the International Physiotherapists working with Older People - IPTOP for our conference on **Topics on Women's Health and Aging in Men and Women.** Co-sponsored with the IOPTWH (Women's Health Subgroup of WCPT), topics will include topics such things as: Trends in Global Aging, Healthy Aging, Osteoporosis, Keeping Elders at Home: Cognitive Health and Dementia, Incontinence in Men & Women, Nutrition and Exercise, Breast Cancer, and Active Aging.

An opening reception and registration will occur the evening of **Friday April 26, 2013,** starting at 5:00 at the Harvard Conference Center in Boston, just a short walk from the conference hotels. This evening will be a wonderful time to get a jump-start on interaction with our supporting sponsors, **Fox Rehabilitation**, our Platinum sponsor, **NuStep,** our Gold Sponsor, **Aegis, Polestar Pilates, Cedaron, and BSN Medical,** our Bronze sponsors**, Magister Corporation, Slack Publishers**, and many more sponsoring vendors will be available in the midst of our registration and opening reception. Enjoy a cocktail and appetizer with new and old friends. This will offer a wonderful opportunity to network with colleagues from many countries and from within the U.S.

Saturday April 27, 2013, will be packed with educational sessions (full schedule published below and also on the IPTOP Web site at www.wcpt.org/iptop). We are delighted to have **Anne Hartstein,** Secretary of Elder Affairs of Massachusetts, welcome all to this conference, and doubly blessed to have **Dr. Marilyn Moffat,** President of WCPT, open the conference with a presentation on Trends in Aging around the World. IPTOP's Members Meeting is scheduled for 3:30 to 5:00 (15:30-17:00) on Saturday afternoon and all members of the Section on Geriatrics are encouraged to come.

Election Results!

The Nominating Committee of the Section on Geriatrics (SOG), chaired by Kathy Brewer, is pleased to announce that the following individuals have been elected to serve the SOG. All terms will begin in January of 2013.

Treasurer
Anne Coffman

Director
Sara Knox

Director
Myles Quiben

Nominating Committee
Mary Thompson

The Nominating Committee wishes to greatly thank all candidates for their willingness to run and their strong interest in taking part in the future success of the Section on Geriatrics.

Saturday evening will be a gathering for cocktails and a sit-down dinner at the Longwood Inn. We are honored to have **Dr. Alan Jette,** Director of the Boston University Health & Disability Research Institute, as our keynote speaker at this dinner. This will provide another magnificent opportunity to interact with WCPT members from near and far.

Sunday April 28, 2013, will be another richly packed day of educational programming, vendor breaks, and networking opportunities. Ending ceremonies will conclude the conference at the end of the day.

All breakfast, lunch, and break refreshments are included in your registration fee, as is the Saturday evening dinner. Additionally, the handouts are provided hardcopy on site and included as part of your registration fee. The links for conference registration and hotel information are provided below. Register early to assure a spot at this exciting conference.

Full details for this conference are provided below… so, save the dates and please come to Boston in the springtime…

International Physical Therapy Conference:

Topics on Women's Health and Aging in Men and Women

Registration is open at: http://conference.ioptwh.org for our next IPTOP Conference in Boston, MA-USA for April 26, 27, & 28, 2013. This conference will be a great place to meet other IPTOP member country physical therapists, enjoy some incredible speakers and topics, do a little IPTOP business, and have fun in Boston. We are meeting in concert with another WCPT subgroup, the IOPTWH (International Organization of Physical Therapists in Women's Health). In addition to providing a unique focus for the conference topics, this will also provide us with the opportunity to meet and network with other physical therapists from around the world. Please schedule these dates for a rewarding trip to Massachusetts in the USA. Register early for the best savings.

The details for registration, hotel accommodations, and conference topics are provided below:

INTERNATIONAL PHYSICAL THERAPY CONFERENCE
Topics on Women's Health and Aging in Men and Women

This is the first combined international course for physical therapists working with women and the aging population.

The International Organization of Physical Therapists in Women's Health (IOPTWH) and the International Association of Physical Therapists working with Older People (IPTOP) have joined together to offer this unique program in late April 2013 in Boston, Massachusetts. These subgroups from the World Confederation for Physical Therapy (WCPT) have brought together a distinguished course faculty that will present topics of interest to physical therapists working with women and the aging population

For more information go to: **www.ioptwh.org OR www.wcpt.org/iptop**

Where:
The Conference Center at Harvard Medical School
77 Avenue Louis Pasteur | Boston, MA (USA)

When:
April 26 – 28, 2013 (Friday-Sunday)

Hotels:
Best Western The Inn at Longwood Medical
Phone: 617-731-4700 | *www.innatlongwood.com*

Holiday Inn Boston-Brookline, 1200 Beacon Street, Brookline, MA 02446
Phone: 617-277-1200 | *www.holidayinn.com/hotels/us/en/brookline/bklma/hoteldetail*

Conference Contents:

Friday, April 26, 2013	
5:00PM	*AM IOPTWH and IPTOP Board Meetings 3 hours at the hotels* 5:00 p.m. Check in at conference site
5:00-8:00PM	Reception
5:00-8:00PM	Vendor Exhibits
Saturday April 27, 2013	
8:00-8:30AM	Registration continental breakfast
8:30-8:45AM	Opening ***Dr.Rebecca Stephenson, President IOPTWH*** ***Dr. Jennifer Bottomley, President IPTOP*** ***Anne Hartstein - Massachusetts Secretary of Elder Affairs***
8:45-9:45AM	WCPT President opening remarks- Trends in World Aging for Men & Women – ***Dr. Marilyn Moffat***
9:45-11:00AM	Physiotherapy and Osteoporosis: Goals and Strategies for Women and Older People – ***Dr. Meena Sran***
11:00-11:15AM	Break
11:15-12:15PM	Communication Skills: Working with the Older Adult - ***Dr. Jennifer Bottomley***
12:15-1:15PM	LUNCH
1:15-3:15PM	Incontinence and Pelvic Organ Prolapse and its Implications in Aging – ***Dr. Meghan Markowski***
3:15-3:30PM	Vendor Break
3:30-4:30PM	IPTOP Member Meeting
3:30-4:30PM	IOPTWH Case Study Presentations ***Gill Brook and Dr. Rebecca Stephenson***
Saturday Evening April 27, 2013	
5:30-6:30PM	Cocktails- Longwood Inn
6:30-9:00PM	Dinner and Keynote Speaker, **Dr. Alan Jette** at the Longwood Inn
Sunday April 28, 2013	
8:30-9:00AM	Continental Breakfast
9:00-10:00AM	Nutrition and Exercise in Aging - ***Bhanu Ramaswamy***
10:00-11:00AM	Understanding the Latest in Urogynecological Surgeries - ***Dr. Neeraj Kohli***
11:00-11:15AM	Break
11:15-12:00PM	Sexual Changes in Women and Men as They Age - ***Dr. Sharon Bober***
12:00-1:00PM	Lunch
1:00-3:00PM	The Aging Breast: At Risk for Breast Cancer - ***Dr. Nancy Roberge***
3:00-3:15PM	Break
3:15-4:15PM	Active Aging - ***Dr. Marilyn Moffat***
4:45PM	Closing

The Joseph S Martin Conference Center @ Harvard Medical School

www.theconfcenter.HMS.Harvard.edu - Virtual Tour available | 77 Avenue Louis Pasteur, NRB Room 133 | Boston, MA (USA) 02115

Fees: $395 USD Advance Registration • On site Registration $415 USD

Go to *http://conference.ioptwh.org* to register.

The conference brochure is available for each of you to access online or via E-mail so that you can share copies for you colleagues. Go to the registration site listed above, the IPTOP Web page, or E-mail me. We will be providing information on things to do in and around the Boston area for you and your family. Travel plans might include extra time to enjoy the sights of Boston, one of the most historical cities in the U.S. So make your plans, book your flights, and come to Boston for the combined IPTOP/IOPTWH International Conference. The conference hotels are located within walking distance to the Conference Center and many Boston attractions. I look forward to seeing you in Boston.

Respectfully,

Jennifer M Bottomley, President IPTOP | *ww.president@iptop.org*

CHOICES

Samantha Kubinski, SPT, DPT Class of 2014, Medical University of South Carolina

"Eww, old people," someone said, "why would you want to go to that one?" "I don't know," I responded, "they're fun." This was, more or less, the conversation I had with my friends right before venturing—alone—to the clinical session on geriatrics at National Student Conclave (NSC) in Washington, DC.

Flash backward 4 weeks previously, and I was just completing my first clinical rotation at a Veteran's Affairs facility in Augusta, GA. My clinical instructor (CI) sat me down to discuss career options, and she made her case for why I should pursue a career in geriatrics. I remember her saying, "You build a really good rapport with them, they like you, and more importantly, they listen to you." I remember thinking along the same lines as my friends at NSC: why would I ever in a million years want to work with old people for a living? My response to my CI was something like, "Well, I have 3 rotations remaining, so we'll see." And we left it at that. But then, as my rotation continued after that conversation, it was like my world turned upside down. I started to waiver from adamantly wanting to work with children, as I began to realize how much I enjoyed working with older adults. Yes, sometimes I had to repeat instructions and explain exercises in different ways in order to get my point across. And yes, there was the occasional patient who had such bad hearing loss I had to scream so the entire clinic could hear what I was saying. But I certainly did not mind. They listened to me and understood my instructions, we joked with and respected each other, and I learned so much as they went off on tangents about life and its lessons during our exercise sessions.

Back to NSC and the geriatrics clinical session. The speaker, Dr. Lucy Jones, provided a comprehensive overview about what it is like working with a geriatric population. The lecture began by debunking some common myths we, as brazen young emerging professionals, possibly still believe about the older adult. My favorite was "older adults are set in their ways and are unmotivated and afraid to exercise." While I did meet quite a few veterans who were "set in their ways," it was rare to meet one unmotivated to recover and ungrateful for any help I could provide to ease his or her pain. And although a few were wary about the exercises I provided, I took it as part of our job description to educate about the benefits of exercise and assure the regimen we provide can indeed alleviate symptoms.

The lecture continued with an overview of the changes associated with aging. The long list of cardiovascular, pulmonary, musculoskeletal, neuromuscular, and integumentary changes we will face made it clear it will be unlikely to meet an older patient who has not undergone some transformations since his or her invincible college years. Understanding the overall effect of age on the body and incorporating appropriate goals into a PT plan of care is just as important with this population as with any other. This was one of my major learning points on my first rotation. Often, I found myself writing unrealistic goals for the patient in the hopes of returning them to peak level of function. When I realized my naivety, it helped me to better listen to my patients. They told me exactly what they wanted to accomplish with therapy, and those became the functional goals we set for them.

Concluding the lecture with functional requirements for the older adult wishing to live in a community-living facility, predictors of successful aging, and some key concepts about successful rehabilitation of the older adult, Dr. Jones taught us there is more to working with a geriatric population than what many may think. I learned the average distance to complete an errand in the community is 1230 feet. I learned the average weight one needs to carry is a 7 pound package, and a gallon of milk weighs 8 pounds. I learned about Widower's Syndrome and how men die within one year of the death of their wives, while mortality in wives is more related to mental health and age. I learned physical exercise has been shown to improve attitude while aging. But most important to me, I learned how older adults can be resilient to the changes in life if we help them acquire an "I can do it" attitude. Treating any patient, particularly an older adult at the end stages of life, revolves around providing the highest quality of life for the patient and his or her caretaker, teaching them to be as independent as possible. Everyone works with patients who pull on the heartstrings and on my first rotation, mine was an older man with end-stage prostate cancer who came to us for gait training and muscular strength and endurance exercises. He would tell me about riding his motorcycles with his wife "back in the day," and I would encourage him to do more repetitions and walk just a bit further. One of our last sessions, he thanked me for "helping him," and his daughter told me his attendance in therapy helped to improve his mood and motivation. I know I did not cure his disease, and I do not know how much I improved his strength or ability to walk; however, I do know at the end of our sessions, he left with improved confidence with mobility and a smile on his face. That's when I realized sometimes it is not just about returning patients to their prior level of function, but rather, it is about helping them attain the highest quality of life, strength, and independence in their current condition, while providing them someone who will listen.

As future physical therapists, we will all face the difficulty of choosing a population or specialty in which to work. Regardless of which path we choose, by 2020, unless we pursue a field in pediatrics, it is likely over 50% of our patients will be over 65 years of age. Dr. Jones began her lecture with this statistic and I choose to end with it here in the hopes of bringing to light the inevitability of working with the beloved older adult to those who seem resistant to do so. In the journal I kept over my first rotation, I wrote, "Oh dear God, I better not be falling in love with geriatrics!" But now, reflecting on my time at the VA and at the geriatrics clinical session at NSC, I realize working with an older population will not be too bad at all; in fact, it will be downright enjoyable. They say it is our choices in life that matter. We've already chosen to enter a profession aimed at helping patients achieve a high quality of life. Now it is time for those of us entering the field with a passion for helping others, to choose to guarantee that those "old people" continue to receive the care they deserve.

RESIDENCY CORNER: BROOKS GERIATRIC RESIDENCY PROGRAM

Jacqueline Osborne, PT, DPT, GCS

The Brooks Geriatric Residency Program is located in Jacksonville, Florida and is housed within Brooks Rehabilitation, a nonprofit organization dedicated to world-class rehabilitation across the continuum of care including inpatient rehabilitation, skilled nursing care, home health, and outpatient rehabilitation services. The Brooks Geriatric Residency Program was established in 2011 and was accredited by the American Physical Therapy Association's American Board of Physical Therapy Residency and Fellowship Education in September 2012. The Brooks Geriatric Residency Program is one of two credentialed geriatric residency programs in a state where more than 17% of the population is over the age of 65.[1] As of January 2012, only 52 of the 13,503[2] physical therapists licensed in Florida were board-certified by the American Board of Physical Therapy Specialties as Geriatric Clinical Specialists.[3]

Our program is unique in that it is a multidisciplinary program. In addition to physical therapy Residents, the program includes "residents" from the nursing, occupational therapy, and speech language pathology professions. Although the APTA Credential only impacts the physical therapy Resident, we feel strongly that advanced training opportunities in the area of geriatrics should be open to other rehabilitation professionals on a multidisciplinary team. We believe this multidisciplinary perspective strengthens the learning experience for physical therapy Residents.

In addition to the Geriatric Residency Program, Brooks Rehabilitation, in collaboration with the University of North Florida, has established residency programs in the areas of Orthopedics, Neurology, and Women's Health, as well as an Orthopedic Manual Physical Therapy Fellowship Program. All of the Brooks Residency and Fellowship Programs are based on 5 foundational pillars: advanced clinical competence, scholarship, education, professionalism, and practice management. These pillars pervade the year-long residency curriculum and are united through one-on-one clinical and scholarly mentoring. Geriatric residents collaborate and interact with residents from other Brooks Programs during formalized classes, psychomotor labs, clinical shadowing, journal clubs, case report presentations, community service projects, and other educational opportunities within Brooks Rehabilitation.

The Brooks Geriatric Residency Program not only prepares Residents for board certification in the area of geriatrics, but also aims to foster advanced clinical skills to attain an expert level of evidence-based clinical practice and to cultivate life-long learners who contribute to the body of physical therapy knowledge in the area of geriatrics.

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Jacqueline Osborne is the Geriatric Residency Coordinator at Brooks Rehabilitation. She delivers the geriatric residency curriculum as well as continuing education courses. She serves as a clinical mentor to both geriatric and neurologic physical therapy residents and maintains a physical therapy clinical practice through Brooks Rehabilitation.

USE OF THE INTERNATIONAL CLASSIFICATION OF FUNCTIONING, DISABILITY, AND HEALTH AS A FRAMEWORK FOR CLINICAL REASONING IN THE CARE OF AN OLDER ADULT WITH ADVANCED PARKINSON DISEASE

Cella Brady, PT, DPT

BACKGROUND AND PURPOSE

In an effort to create a common language among health care professionals the International Classification of Functioning, Disability, and Health (ICF) was endorsed by the World Health Organization (WHO) in 2001. The ICF model is a framework based on the use of health condition, body functions and structures, activity limitations, participation restrictions, and environmental and personal contextual factors as a means to describe an individual's health status.[1] Following the WHO endorsement of the ICF model, the American Physical Therapy Association (APTA) adopted the model in 2008.[2] Adoption by the APTA urged physical therapists (PT) to use the ICF model to organize the examination plan, the clinical impression and physical therapy diagnoses, the prognoses, the intervention plan, and the goals when developing the course of a patient's treatment and recovery.[2]

The ICF framework can also be applied during clinical decision making, documentation, and mentoring.[3,4] Recent literature has provided guidance for the integration of the ICF model with the *Guide to Physical Therapist Practice* for identifying barriers to creating a successful plan of care especially in the care of a patient with a complex health history.[1,5] Thus, the purpose of this case report is to demonstrate the use of the ICF model as a framework for clinical reasoning in the outpatient physical therapy care of an older adult with advanced Parkinson disease (PD).

CASE DESCRIPTION

The patient was a 68-year-old community dwelling male who presented to an outpatient physical therapy clinic with a referral from his family physician that stated, "Parkinson's and leg weakness, evaluate and treat." The patient reported that he was diagnosed with PD and dementia 32 years prior. During the initial examination, the patient noted difficulty during ambulation and transfers. He noted increased frequency of loss of balance and an overall decline in independence. One year prior he attended physical therapy for the treatment of upper and lower extremity weakness. However, the patient self discharged when he began having hallucinations and sleep walking after each physical therapy session. No rationale for the patient's signs and symptoms was provided by his PT or physician at that time. Consequently, the patient and his wife were hesitant to attempt physical therapy again due to this previous experience.

History and Systems Review

The patient's comorbid conditions included arthritis of bilateral hands and knees, bilateral hearing deficit, anxiety, depression, epilepsy, osteoporosis, and gastroesophageal reflux disease (GERD). Medications included Namenda, Aricept, and Seroquel for dementia; Zoloft for depression; Prilosec for GERD; and Xanax for anxiety. Activity limitations included additional time and assistance to get out of bed, falling out of bed in the middle of the night, additional time and assistance to rise from a chair, and decreased ease of ambulation. There was no history of falls during ambulation or transfers. Additional activity limitations included aspiration while eating and difficulty with short term recall. Participation restrictions affecting the plan of care included the patient's inability to independently attend a local center on aging where he participated in light exercises including stretching, seated exercises, and mind stimulation activities. Contextual factors affecting the plan of care included the patient's age, early onset of PD, comorbid conditions, and complex cognitive history. The ICF model with complete details of the ICF domains considered when formulating the plan of care for this patient are delineated in Figure 1.

Blood pressure, oxygen saturation, and heart rate were evaluated as the standard of care of an older adult. All measured vital signs were within normal limits at rest and after activity. Assessment of impairments in body functions and structures stemmed from the patient's health conditions, chief complaints, and skilled observation. A neurological screen, including sensation, deep tendon reflexes, and proprioception, was performed based on the diagnosis of PD, the patient's age, and reported cognitive changes. Decreased light touch was noted in bilateral upper and lower extremities. The patient also presented with decreased proprioception of bilateral great toes, ankles, and thumbs.

Examination

Cognition, an oculomotor exam, coordination, lower extremity range of motion (ROM) and strength, gait, and balance were assessed to determine deficits that may contribute to activity limitations and participation restrictions. The patient was alert and oriented to person, place, and time; however, he required additional time for answering. Finger-to-nose and rapid alternating movements revealed dysmetria, dysdiadokinesia, and bradykinesia of bilateral upper and lower extremities. Bilateral lower extremity passive ROM and active ROM were within functional limits. However, rigidity was present for bilateral knee extension and plantar flexion. Bilateral lower extremity strength was decreased with posterior musculature weaker than anterior musculature.

The patient ambulated with no assistive device and contact guard assistance at home and in the community. He demonstrated delayed initiation of gait and episodes of freezing when faced with an obstacle, such as an object to step over. The patient presented with a decreased step through gait pattern as well as decreased step length and height bilaterally. Bilateral heel strike and toe

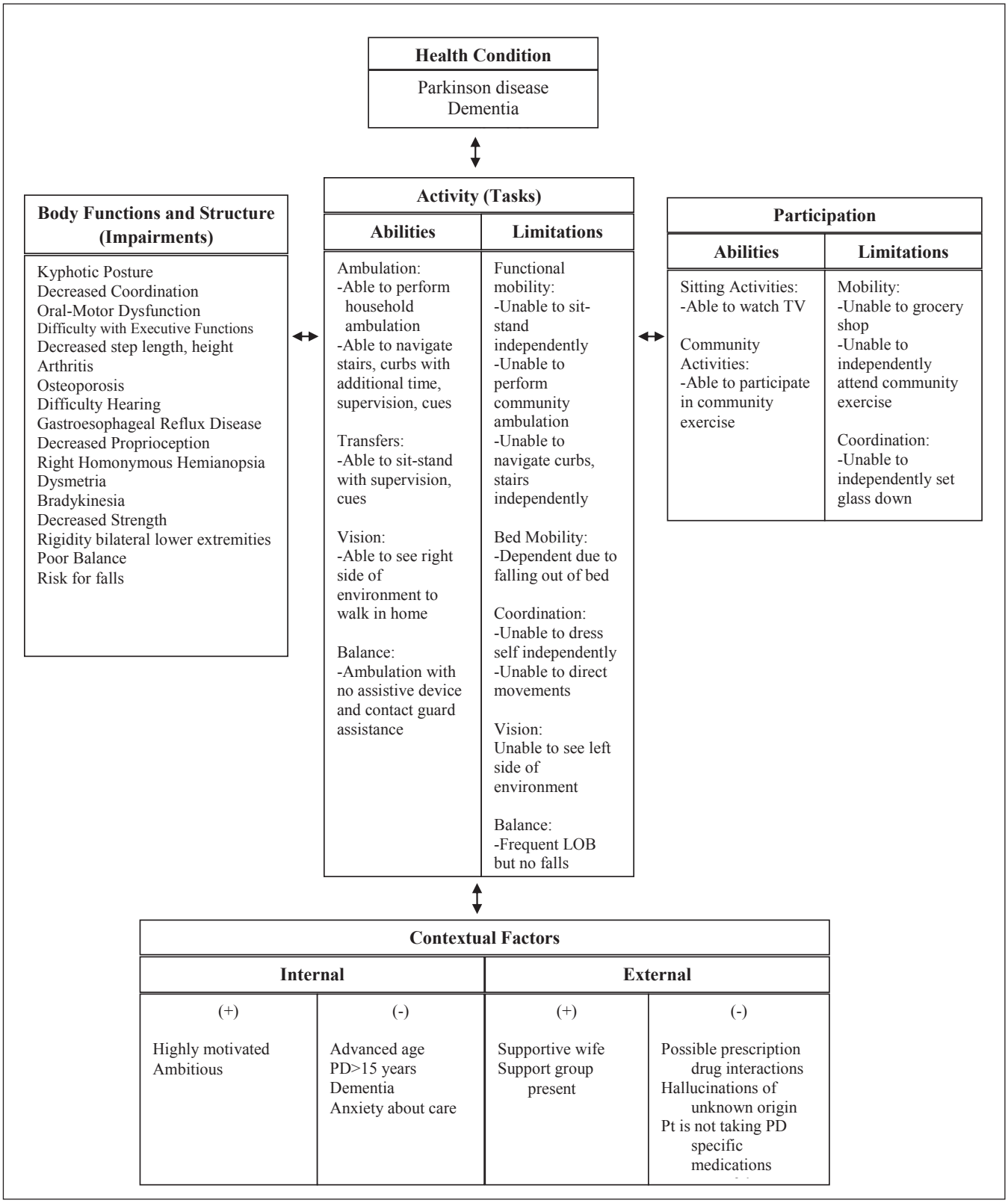

Figure 1. ICF Framework for a patient with advanced PD and dementia.

off was diminished, resulting in foot flat during initial and terminal stance.

Fall risk and balance assessment was performed using the Dynamic Gait Index (DGI) and the Berg Balance Scale (BBS). The DGI and the BBS were deemed appropriate measures of fall risk and imbalance because studies have shown that both the DGI and the BBS can discriminate between people with PD and a history of falls, and those without a history of falls.[8,10] The DGI has also been used to predict the likelihood of falls in people with PD who could ambulate household distances.[8] Because the patient in this case could ambulate household distances and did not have a history of falls, the DGI and the BBS were deemed appropriate outcome tools to assess fall risk and imbalance.

Research investigating the multifactorial nature of falls in those with PD has demonstrated that the DGI and BBS, when used as individual clinical tests to assess fall risk or imbalance, may not fully define one's actual deficit in this population.[6-8] When performed together however, the DGI and BBS may be fair determinants to rule out a risk of falls in persons with PD. Scores of ≤ 19/24 for the DGI and ≤ 46/56 for the BBS have been used as the cutoff scores for determining fall risk in those with PD.[9] Based on these cutoffs, when the DGI and the BBS are performed together, the sensitivity is 0.82 and the negative likelihood ratio (LR) is 0.34.[9] Combined specificity and positive LR are 0.51 and 1.69 respectively indicating a high rate of false positives.[9] In this instance, it was preferred to falsely determine a person as a risk for falls and provide intervention than to falsely determine that no risk exists and provide no intervention. The patient in this case scored a 13/24 on the DGI and a 39/56 on the BBS indicating a risk for falls.

Clinical Impression

Using the ICF framework in a patient with a progressive neurological disease is beneficial because of the complex disease process and the importance of considering a variety of elements in the physical therapy management of such a patient. The history of dementia, complex medication regimen, absence of PD specific medications, history of hallucinations, and a desire to be involved in the community must be considered when managing this patient's care.

Identification of impairments in body functions and structures, activity limitations, participation restrictions, and contextual factors guided the examination process. For example, decreased step length (impairment in body function and structure) contributed to the patient's complaints of difficulty walking (activity limitation) and the patient's ability to attend the center for aging (participation). Based on this information, an assessment of gait, balance, lower extremity ROM, sensation, proprioception, and strength was warranted.

Contextual factors contributing to examination included a long standing history of PD resulting in suspected decline in coordination and motor control (impairments in body function and structure). Poor coordination and motor control may affect the ability to perform sit to stand, and therefore affect the patient's ability to attend activities at the center of aging (participation) due to an inability to stand independently. Thus, a neurological screen and assessment of coordination and motor control was indicated. Contextual factors, which were vital to keep in mind during the examination process and intervention planning, were the patient's history of anxiety, hallucinations, and potential effects of a complex medication regimen. Keeping these contextual factors at the forefront during the examination process and intervention planning aided the PT in maintaining the patient's comfort, increasing the likelihood of patient compliance and decreasing the potential for adverse signs and symptoms following physical therapy.

Based on exam findings the patient's decreased proprioception, rigidity, bradykinesia, and decreased strength (impairments in body functions and structures) each contributed to poor balance and increased risk for falls. Poor balance and fall risk directly result in unsafe independent ambulation (activity limitation) and ability to attend the center on aging (participation). Safe ambulation and the ability to participate at the center for aging were also affected by the patient's right homonymous hemianopsia and inability to see his left side (impairments in body functions and structures).

Based on the ICF framework and examination findings, the patient's prognosis for physical therapy was poor. The patient's prognosis was based on his history of unsuccessful past physical therapy with a history of hallucinations suggesting that patient adherence to physical therapy and home exercise would be poor. Pharmacological contributions to the patient's identified limitations according to the ICF framework was also in question since the patient was not taking PD specific medications such as dopamine replacement therapy or dopamine agonists. Applying the ICF framework for this patient helped to consider these contextual factors for determining prognosis. Physical therapy was provided in spite of this prognosis; however, based on evidence in the literature that physical therapy intervention focused on motor learning[11-13] and high intensity exercise[14-16] can assist in the treatment of the movement dysfunctions associated with PD, even in the advanced stages of the disease process.[17] In addition, the elapsed time from previous physical therapy interventions to the current initial examination may have resulted in changes of the patient's condition or medication changes that were unreported.

Intervention

The ICF framework including examination findings was used to develop the intervention plan for this patient. Interventions were first focused on body functions and structures, and when possible, the interventions were applied to a task specific activity and compensatory strategies. As the patient progressed, therapy was directed toward placing task specific activities into a functional context to allow transference of tasks and learning.[17]

An intervention that followed this progression was having the patient alternately tap his heel on the top of a 6-inch step. This task was chosen to promote spatial awareness, posterior weight acceptance, and lateral weight shifting, all of which are skills necessary for dynamic gait in the community. The patient was initially encouraged to use one hand to support his balance. The task was performed until the patient was able to perform the task without upper extremity assistance. The activity was progressed to task specific training by having the pa-

tient complete step ups onto the 6-inch step. Again, the assistance of one upper extremity was initially permitted, but was withdrawn as the patient learned the task and improved motor control. Progression to a participation activity would be to have the patient ascend and descend a curb outside with minimal upper extremity assistance and eventual progression to no upper extremity assistance.

The ICF model also exposed non-motor impairments and their effects on intervention into the plan of care for this patient including impaired executive functioning and right homonymous hemianopsia. The patient's early onset of PD, his reported memory deficits, and his limitations with basic activities of daily living implied that a specific approach using motor learning concepts including repetition and specifically applied cueing to improve motor performance was necessary. All instructions during therapy were provided using verbal and visual cues due to the impaired implicit learning system in patients with PD.[13]

OUTCOMES

Outcomes were not assessed upon discharge due to the completion of only two visits following the initial examination. The first intervention session included light strengthening dosed according to the patient's tolerance since it was postulated that the patient's prior experience of hallucinations may have been triggered by exercise intensity. Additional interventions delivered at the hour-long first session after the initial examination included patient education, practice with bed mobility skills, and gait training. Upon return to the second physical therapy session after the initial examination, the patient and his wife reported that he experienced increased hallucinations and sleep walking the night of the first intervention session. After discussion with the patient and his wife, the second treatment included sit to stand transfer training, static balance activities, and gait training. The PT called the patient the following day to check on the patient's status and learned that he had experienced hallucinations the night of his physical therapy session, had been sleep walking, and fell. The patient was advised to discontinue physical therapy, seek further medical attention, and inquire about possible side effects of his current medications. The PT communicated with the referring physician regarding the patient's signs and symptoms and the recommendation to discontinue physical therapy until further information could be gathered regarding the possible correlation between the patient's hallucinations and his participation in outpatient physical therapy

DISCUSSION

The use of the ICF framework in the physical therapy management of a patient with a complex neurological condition prompted the PT to consider a multitude of elements affecting patient care. Based on the patient's report, the PT learned that the patient was able to participate at the center on aging; however, he required supervision when walking in the community. He was able to perform household ambulation independently, which guided the PT to inquire as to why community ambulation was limited. Impairments in body function and structure, activity limitations, and participation restrictions aided the PT in determining those details that limited community ambulation. Body functions and structures affecting community ambulation included decreased step length and height, decreased proprioception, right homonymous hemianopsia, bradykinesia, rigidity of bilateral hamstrings and calves, decreased strength, and poor balance. Contextual factors affecting community ambulation included the patient's supportive wife who was willing to help her husband, as well as the patient's ambitious nature and desire to participate in his community.

Without consideration of the interaction between the health conditions, impairments of body functions and structures, activity limitations, participation restrictions, and contextual factors, a neurological screen may not have been performed and the discovery of right homonymous hemianopsia may have been overlooked. It could have been incorrectly assumed that the patient's loss of balance was solely due to the long course of his disease process and his changes in executive functions, thus altering the intervention approach. Con-

sidering additional contextual factors resulted in the discovery that the patient was not taking PD specific medications. The patient's history of hallucinations and high level of anxiety may not have been discovered either. Having an understanding of the factors affecting the patient's care allowed the PT to appropriately communicate with the referring physician regarding the patient's hallucinations following physical therapy interventions, the apparent absence of hallucinations following participation at the center for aging, and the absence of PD specific medications. Without implementation of the ICF model, the prognosis and appropriate contact with the physician may not have been made.

Implementing the ICF model in the management of a patient with a complex neurological condition aided the PT in considering and organizing the multitude of variables affecting care. Further research is warranted to determine if applying the ICF model to patients with progressive neurological conditions results in more comprehensive care and more successful outcomes than those in whom the ICF framework was not used. In addition, further research should elucidate if a patient's goals are achieved more rapidly when the ICF framework is used when constricting the plan of care.

The ICF model is a valuable tool to be used by health care professionals, including physical therapists. It promotes a comprehensive view of the patient and encourages health care providers to consider variables, positive and negative, which influence care. When implemented in the physical therapy management of a patient with progressive PD, the ICF framework guided the clinical decision making involved in formulating the examination, prognosis, intervention plan, and discharge plan.

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Cella Brady earned her doctorate of physical therapy in 2011 from the University of South Florida. She continued her education with Brooks Geriatric Residenc,y which she completed in June of 2012. Cella will be sitting for the Geriatric Certification Exam in March 2013.

ASSESSING THE PUBLIC RELATIONS NEEDS FOR THE GERIATRIC SECTION

Hello Section Members!

In the last *GeriNotes*, the Public Relations Committee shared with you our desires to hear more about your activities with respect to outreach so that the Section on Geriatrics can serve your needs better. We are excited to offer you this survey to gather this information! The survey is also being offered through SurveyMonkey https://www.surveymonkey.com/s/YMXZ9HD. The Section on Geriatrics wants to make public relations tools and opportunities available to our members and the stakeholders they serve. Please take a minute to complete. Like any survey, the more responses we receive the better we can understand and meet everyone's needs. If you wish to fill out the paper version of the survey, please send your responses to:

Section on Geriatrics
3510 East Washington Ave. | Madison, WI 53704

THANKS!!
Karleen Cordeau
Chair, Public Relations Chair
Section on Geriatrics

SOG PR Questionnaire

1. **Please indicate your sex:**
   a. Female
   b. Male

2. **Which category best describes you?**
   a. PT
   b. PTA

3. **What was your first (entry-level) physical therapy degree?**
   a. Baccalaureate degree
   b. Post baccalaureate certificate
   c. Master's degree
   d. DPT

4. **What is the highest earned degree (or degrees) you hold in any area of study? (Select only one)**
   a. Baccalaureate degree
   b. Master's degree
   c. PhD (or equivalent, eg, EdD or ScD)
   d. DPT
   e. tDPT
   f. PhD (or equivalent) and DPT
   g. PhD (or equivalent) and tDPT
   h. Other (please specify):
   _____

5. **How many years have you been in practice?**
   a. 1-5
   b. 5-10
   c. 11-15
   d. 15-20
   e. 20-30
   f. 30+

6. **What position do you hold?**
   a. Clinical
   b. Supervisory
   c. Management
   d. Administrative
   e. Academia
   f. Other:_____

7. **What type of setting do you work in?**
   a. Outpatient
   b. Acute
   c. Acute rehab
   d. Subacute
   e. Long term care
   f. Home health
   g. University
   h. Other:_____

8. **Do you perform any Public Relations activities?**
   a. Yes
   b. No

9. **If not, why?**
   a. Time
   b. Funds
   c. Not your responsibility
   d. I have never been asked
   e. I don't want to
   f. I don't know how
   g. I don't have the tools
   h. Other:_____

10. **What groups do you address?**
    a. General public
    b. Other health care professionals
    c. Professional organizations
    d. Politicians
    e. Media
    f. All of the above
    g. None
    h. Other:_____

In Questions **11-19,** please identify how frequently you may perform the PR activity listed by checking off a-e in each column:
   a. Daily
   b. Weekly
   c. Monthly
   d. Annually
   e. Never

11. Speaking to the general public
a. Daily
b. Weekly
c. Monthly
d. Annually
e. Never

12. Speaking to other professionals
a. Daily
b. Weekly
c. Monthly
d. Annually
e. Never

13. Speaking to other professional organizations/associations
a. Daily
b. Weekly
c. Monthly
d. Annually
e. Never

14. Newsletters
a. Daily
b. Weekly
c. Monthly
d. Annually
e. Never

15. Tradeshows
a. Daily
b. Weekly
c. Monthly
d. Annually
e. Never

16. Conferences
a. Daily
b. Weekly
c. Monthly
d. Annually
e. Never

17. Web site
a. Daily
b. Weekly
c. Monthly
d. Annually
e. Never

18. Radio
a. Daily
b. Weekly
c. Monthly
d. Annually
e. Never

19. Television
a. Daily
b. Weekly
c. Monthly
d. Annually
e. Never

20. Most of the PR activities you perform are funded by:
a. Pro bono
b. Paid through your employer
c. Grants/Donations
d. Donations
e. Other_____

21. How frequently do you visit the SOG Web site?
Never
Daily
Weekly
Monthly
Quarterly
Annually

22. Are you aware of the tools that are offered by SOG that can be used for PR?
a. Yes
b. No

23. Do you use/reference patient education brochures on the Web site?
a. Yes
b. No

24. Do you use the videos offered on the Web site?
a. Yes
b. No

25. Do you guide your consumers to the Web site for information?
a. Yes
b. No

26. Are you aware of the SOG Partners Program?
a. Yes
b. No

27. Can you please offer some ideas for some Public Relations Tools that would be beneficial to you and your Stakeholders?

_____

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Section on Geriatrics
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Ph: 866/586-8247
Fax 608/221-9697
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For age is opportunity, no less than youth itself,

though in another dress, and as the evening twilight fades away, the sky is filled with stars, invisible by day.

- Henry Wadsworth Longfellow

Section on Geriatrics - APTA
GERINOTES
2920 East Avenue South, Suite 200
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