

The Silver Tsunami: Meeting the Growing Rehab Challenges of Older Adults

Combined Sections Meeting 2018
New Orleans, LA, February 21 – 24, 2018



Speakers

- **Carol Jo Tichenor, PT, MA, FAPTA (Creighton University)**
 - Assistant Clinical Professor, Past Director OMPT Fellowship
- **Becky Olson-Kellogg, PT, DPT (University of Minnesota)**
 - Board Certified Geriatric Clinical Specialist, Certified Exercise Expert for Aging Adults
 - Assistant Professor, Associate Director, Director Geriatric Residency
- **Greg Hartley, PT, DPT (University of Miami)**
 - Board Certified Geriatric Clinical Specialist, Certified Exercise Expert for Aging Adults
 - Assistant Professor, Past Director Geriatric Residency, Past Chair of ABPTRFE
- **Kathy Brewer, PT, DPT, MEd (Mayo Clinic)**
 - Board Certified Geriatric Clinical Specialist, Certified Exercise Expert for Aging Adults
 - Director Geriatric Residency



Panel Presenters

- **Matthew Briggs, PT, DPT, PhD, AT (The Ohio State University)**
 - Board Certified Sports Clinical Specialist
- **Kathleen Shirley, PT, DPT (Texas Woman’s University)**
 - Board Certified Orthopaedic and Geriatric Clinical Specialist
 - Assistant Clinical Professor of Physical Therapy
- **Raine Osborne, PT, DPT, FAOMPT (Brooks Rehabilitation Clinical Research Center)**
 - Board Certified Orthopaedic Clinical Specialist
 - Past Residency Coordinator, Adjunct Faculty University of North Florida



Panel Presenters

- **Jackie Osborne, PT, DPT (University of North Florida, Brooks Institute of Higher Learning)**
 - Board Certified Geriatric Clinical Specialist, Certified Exercise Expert for Aging Adults, Director Geriatric Residency
- **Rob Robinson, PT, DPT (University of North Florida, Brooks Rehab)**
 - Board Certified Geriatric Clinical Specialist, Certified Exercise Expert for Aging Adults, Geriatric Residency Graduate, Assistant DCE



Disclosures

- All speakers have previously been, or are currently, active in residency/fellowship education.
- No relevant financial relationship exists with any speaker.



Session Learning Objectives

- Discuss common gaps and pitfalls in management of the older adult population across PT settings, the value of collaborating across specialty areas, and the importance of managing older adults’ holistically to abet an impending global health crisis.
- Describe ageism present among physical therapists and strategies to reduce it.
- Discuss the opportunities for entry-level DPT and residency/fellowship programs to positively influence readiness and perception of graduates working with older adults regardless of their chosen area of specialization.
- Describe and discuss the global crisis in shortage of skilled geriatric healthcare specialists.



A Global Healthcare Crisis?

Greg Hartley, PT, DPT
Board Certified Geriatric Clinical Specialist
Certified Exercise Expert for Aging Adults



Demographics of Aging – U.S. (≥65 yo)

Date	% of Population
1900	4
1980	11.3
2030	20
2050	25



Aging of the Aged

In 2030:

We will have as many >75 yo as there were >65 yo in 1980.

- <https://www.cdc.gov/aging/pdf/state-aging-health-in-america-2013.pdf>



Aging Boomers...

- By 2050, it is anticipated that Americans aged 65 or older will number nearly 89 million people, or more than double the number of older adults in the United States in 2010.
 - The leading edge of the baby boomers reached age 65 in 2011, launching an unparalleled phenomenon in the United States. Since January 1, 2011, **and each and every day for the next 20 years**, roughly 10,000 Americans will celebrate their 65th birthdays.
 - In 2030, when the last baby boomer turns 65, the demographic landscape of our nation will have changed significantly. One of every five Americans—about 72 million people—will be an older adult.
- (Pew Research Center)



Aging Boomers...

By 2030...

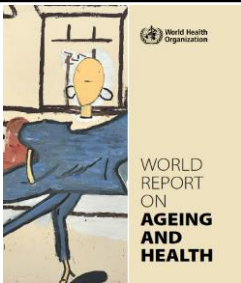
- 1st boomers turn 84
- Hip replacements to grow 174%
(572,000 vs 332,000 in 2014)
- Knee replacements expected to jump 673%
(3.48 million vs 719,000 in 2014)

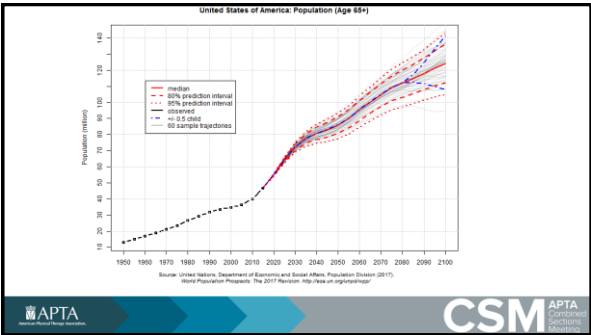
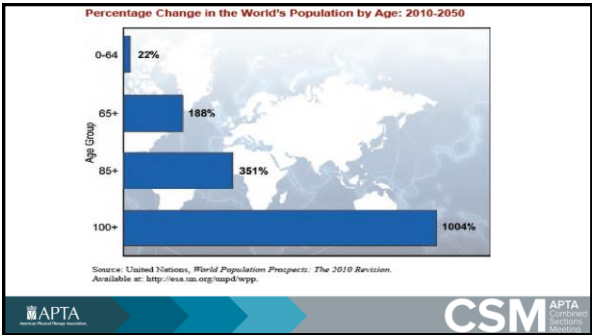
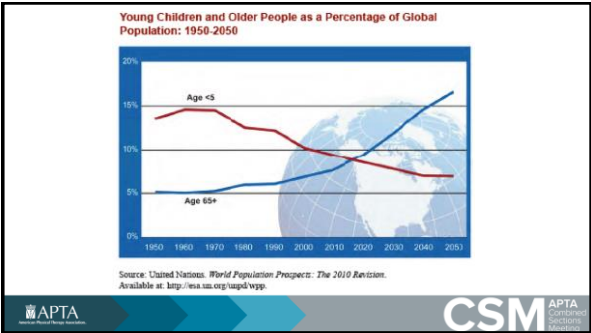
J Bone Joint Surg Am. 2014;96:e165(1-8). <http://dx.doi.org/10.2106/JBJS.M.01285>



Current public-health response -
more of the same will not be enough

<http://www.who.int/ageing/events/world-report-2015-launch/en/>

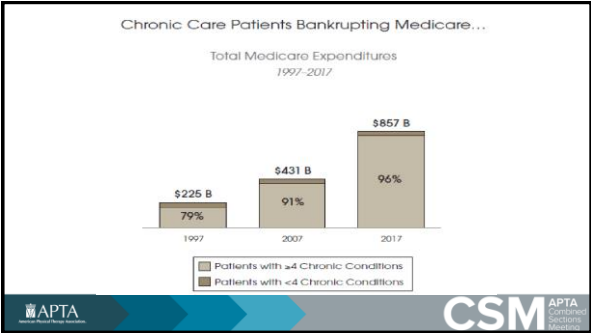


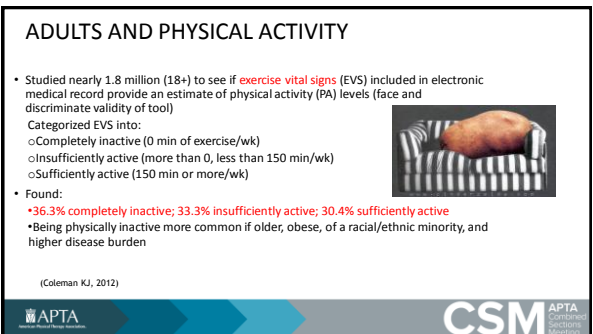
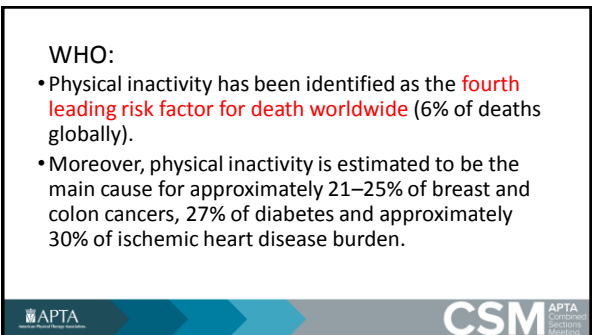


Chronic Diseases: The Leading Causes of Death and Disability in the United States
<http://www.cdc.gov/chronicdisease/overview/>

- Obesity is a serious health concern. During 2009–2010, more than one-third of adults, or about 78 million people, were obese (defined as body mass index [BMI] ≥ 30 kg/m²). Nearly one of five youths aged 2–19 years was obese (BMI ≥ 95 th percentile).
- Arthritis is the most common cause of disability. Of the 53 million adults with a doctor diagnosis of arthritis, more than 22 million say arthritis causes them to have trouble with their usual activities.
- Diabetes is the leading cause of kidney failure, lower limb amputations other than those caused by injury, and new cases of blindness among adults.

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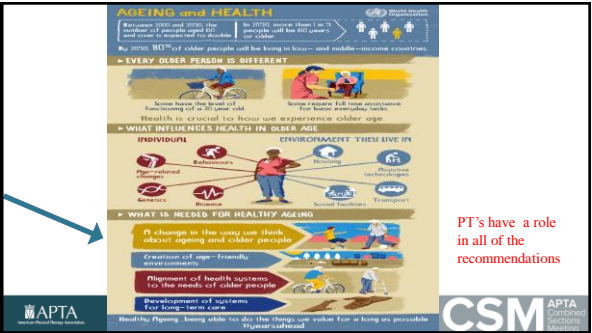


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JAMA, Berra,et al, 2015

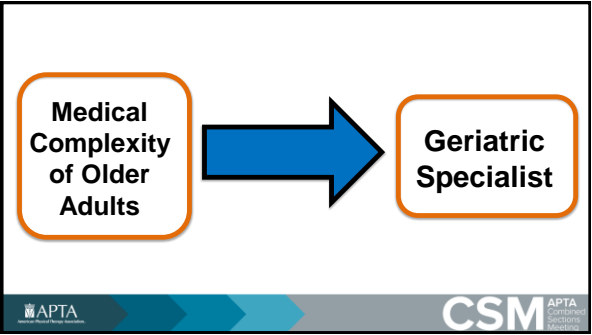
Table. Strategies for Integrating Physical Activity Counseling Into Clinical Practice	
Activity	Team Member
Make physical activity a vital sign at each clinic visit	Health care professional or clinic staff
Ask if the patient exercises regularly or engages in a physical activity; if yes, ask what type, for how many minutes, and how often; if no, ask if the patient is willing to start	Health care professional or clinic staff
Associate physical activity with reduced risk of heart disease, stroke, diabetes, and many cancers	Health care professional
Write a prescription for agreed-upon daily physical activity, working up to at least 30 minutes of walking or other moderate-intensity activity daily	Health care professional or clinic staff
Encourage use of a pedometer and advise record keeping of daily activity (mobile device, paper and pencil, internet, or other)	Health care professional or clinic staff
Recognize success and encourage reluctant adopters	Health care professional and clinic staff

JAMA. Published online December 10, 2015. doi:10.1001/jama.2015.16244



Expert Practice in Geriatrics

Becky Olson-Kellogg, PT, DPT
Board Certified Geriatric Clinical Specialist
Certified Exercise Expert in Aging Adults



Specialist vs. Generalist

- Specialized body of knowledge
- Holistic view of patient
- Increased efficiency
- Resource connection / referral
- Improved effectiveness / outcomes

Changes in PT Education & Advancement

- Evolution of entry-level education
- Opportunities for advanced knowledge & skills in specialized areas of practice
 - Board Certified Clinical Specialists
 - Residency & Fellowship education

Clinical Specialists

- Research the literature
- Consider the broader perspectives
- Think about multiple domains
- Share their expertise
- Perform in a more nuanced manner



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Residency Specialties

- Respond to societal needs
- Respond to workforce distribution
- *“Should the profession be concerned about developing more geriatric residencies given the aging population in the United States?”*

Furze et al, 2016



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Residency Graduates → Specialists

- Demonstrated improved non-patient care skills also
 - Advanced leadership skills
 - Professional development
 - Other professional skills
 - Higher earned income

Jones et al, 2008



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Residency

Development of a Specialist

- Facilitate patient to actively engage in treatment process to improve his/her condition
- Clinical reasoning skills of a specialist understands patient's **“life context”**
 - An essential component of therapist's clinical reasoning process in developing as a specialist

Furze et al, 2016



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Development of a Specialist

- Diverse set of skills of increased **breadth** & **depth**:
 - Advanced knowledge
 - Advanced hands-on skills
 - Advanced clinical reasoning
 - Advanced teaching & learning strategies
 - Advanced non-patient skills



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Residency

Defining Geriatrics

- **Primary Care for older adults or a Specialty Discipline?**
- *“A ‘**metadiscipline**’ that transcends & informs all other disciplines”*
 - Will never be able to train enough geriatricians to provide direct care to all older adults
 - Need to ensure that all clinicians are competent in geriatric principles & practices


Tinetti, 2016



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Healthcare Payment Reform

The Triple Aim



Institute for Healthcare Improvement


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Healthcare Payment Reform

- Requires specialists:
 - Understand the changes
 - Able to navigate the changes successfully
- The right care → at the right time → to the right person → by the right person
- Value + Efficacy + Efficiency



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Geriatric Principle Based Approach

- Geriatric specialists → skilled at managing complex patients
 - Can inform mainstream healthcare
- “We are **THE** experts in complexity & all that comes with it...uncertainty, tradeoffs, interdisciplinary teams, multiple coexisting conditions, patient goal-driven care”*
Tinetti, 2016

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Geriatric Principle Based Approach

- Teaching/mentoring/consulting is what we do as specialists
- Integrate geriatric specialists into orthopedic PT practice & residency education
 - Assist you in understanding:
 - Normal & pathological aging
 - Comprehensive POC
 - Referral to other services / resources

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Committee on Future Health Care Workforce for Older Americans

- Fundamental reform in care delivery to older adults
 - Those with complex medical issues need care that is streamlined & coherent
 - Education & training for entire workforce
 - Improve everyone’s “geriatric competence”
 - Interdisciplinary models imperativeInstitute of Medicine, 2008

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- Geriatric specialists → train the workforce in geriatric principles / competencies
 - Geriatric content in orthopedic residencies
 - Inservice training in clinics
- Persons treated by geriatric nurse specialists:
 - Less likely to be restrained
 - Have fewer readmissions to hospital
 - Less likely to be inappropriately transferred from nursing home to hospitalInstitute of Medicine, 2008

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Committee Recommendations

- To improve the ability of the US health care workforce to care for older Americans:
 1. Enhance competence of all individuals in the delivery of geriatric care
 2. Increase recruitment & retention of geriatric specialists & caregivers
 3. Redesign models of care & broaden provider & patient roles to achieve greater flexibility

Institute of Medicine, 2008

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In Summary...

Our Recommendation: Include a GCS on all orthopedic clinical staff teams

- Teach / mentor / consult on older adult patients
- Increase your **“geriatric competence”**
- Teach in orthopedic residencies
- Improve patient experience
- Improve patient outcomes

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Ageism and a Call to Action!



Kathy Brewer, PT, DPT
Board Certified Geriatric Clinical Specialist
Certified Exercise Expert for Aging Adults

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How do YOU Define Older Adults?



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How do YOU Define Older Adults?

By Chronological age:

- Gerontologists traditionally focus on persons aged 60 + years
- The federal government uses age 65 as a marker for full Social Security and Medicare benefits.
- Researchers identify subgroups of "older adults" as:
 - "younger old" (ages 65-75)
 - "older-old" (ages 75-85)
 - "oldest old " (85+)



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Aging – a lifespan experience

- Developmental - NOT chronological
- Increasing vulnerability to environmental changes
- Increasing probability of death
- Multifactorial process...
- No universally accepted theory
- Confusion between normal and pathological aging

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• **Successful Aging:** absence of disease and disability; high cognitive and physical functioning; active engagement with life

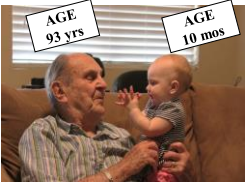
• **Optimal Aging:** Capacity to function across may domains – physical, functional, cognitive, emotional, social, spiritual – to one’s satisfaction and in spite of one’s medical conditions.

• **Typical Aging:** one or more medical conditions that become prevalent in later life.

The Faces of Aging...

AGE 93 yrs

AGE 10 mos



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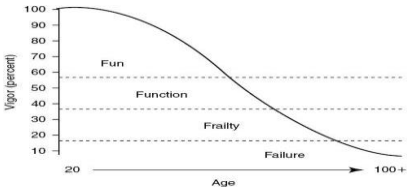


FIGURE 1-2 Slippery slope of aging depicts the general decline in overall physiological ability observed with increasing age and its impact on function.
(Adapted from Schwartz RS: Sarcopenia and physical performance in old age; introduction, Muscle Nerve Suppl: S10-S12, 1997.)

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Lifespan vs. Healthspan

Health of your life

Limited by:

•Longevity

•Disease

•Disability

•Frailty

Compression of Morbidity

Lifespan

LeBrasseur NK, 2012

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Cellular Senescence

• Aging is the primary risk factor for chronic disease

• Cells become dysfunctional after a defined number of divisions

• Healthy divisions are compromised by injury and disease

• Maintenance of healthy cell life does not expand length of life but rather length of healthspan

• Single greatest influence on maintenance of healthy cellular function is physical activity

LeBrasseur, 2012

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Aging Adult Syndromes of Concern to Physical Therapists

• Sarcopenia

• Falls

• Depression

• Frailty


• Cognitive impairment

• Incontinence

• Malnutrition

• Physical inactivity/Sedentary Death Syndrome

“The chief complaint may not represent the specific pathological condition underlying the change in health status.”

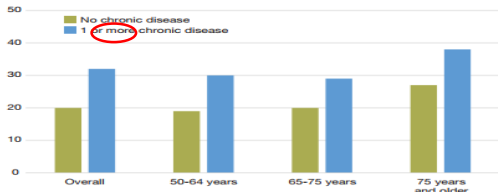


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Percentage of self-reported physical inactivity among adults 50 years and older by chronic disease status and age group, Behavioral Risk Factor Surveillance System 2014



<https://www.cdc.gov/physicalactivity/inactivity-among-adults-50plus/adults-need-more-physical-activity-factsheet.pdf>. Accessed Nov 6, 2017

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Poor functional outcomes?


- Patient compliance vs. insufficient dosage
 - lack challenge in exercise prescription
 - education for safe physical activity
 - removing barriers for sustainability of gains



Consider this...



American Physical Therapy Association
Five Things Physical Therapists and Patients Should Question






Choosing Wisely
An initiative of the ACP/ABIM Foundation

2

Don't prescribe under-dosed strength training programs for older adults. Instead, match the frequency, intensity and duration of exercise to the individual's abilities and goals.

Improved strength in older adults is associated with improved health, quality of life and functional capacity, and with a reduced risk of falls. Older adults are often prescribed low dose exercise and physical activity that are physiologically inadequate to increase gains in muscle strength. Failure to establish accurate baseline levels of strength limits the adequacy of the strength training dosage and progression, and thus limits the benefits of the training. A carefully developed and individualized strength training program may have significant health benefits for older adults.

<http://www.choosingwisely.org/societies/american-physical-therapy-association/>
accessed December 2, 2017.



Professional obligation

Limited resources (i.e. Medicare cap, insurance limits)

+




Excessively conservative intervention

=

Underdosing and suboptimal outcomes;




leaving vulnerable older adults at risk for falls and other secondary conditions related to weakness and deconditioning.

Whetten, 2011



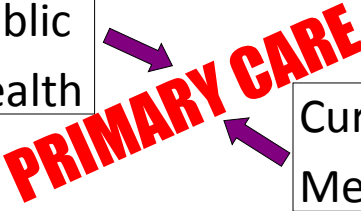
Physical therapists are essential providers to address the numerous chronic and degenerative conditions common among aging adults.

OPPORTUNITY






Embracing our scope of practice


Public Health



Curative Medicine






"... embrace the professional and personal opportunities presented by the aging population. Lewis specifically cited the **greater use of functional assessments and the promotion of exercise**. She said, "Exercise and functional assessment are just 2 examples of where we need to shake ourselves out of our complacency. We must continually expand our professional toolboxes, and we must be confident, loud, and supportive of our unique therapeutic skills."



News From NEXT: McMillan Lecturer Calls for **Renewed Focus on Geriatrics**

Carole B. Lewis, PT, DPT, PhD, FAPTA, issued a call to action during the 47th Mary McMillan Lecture June 9 at NEXT 2016. In her address titled "Our Future Selves: Unprecedented Opportunities,"



Essential Competencies in the Care of Older Adults at the Completion of a Physical Therapist Post Professional Program of Study

- Domains
 - Health promotions and safety
 - Evaluation and assessment
 - Care planning and coordination across the care spectrum
 - Interdisciplinary and Team care
 - Caregiver support
 - Healthcare systems and benefits

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Essential Competencies in the Care of Older Adults at the Completion of a Physical Therapist Post Professional Program of Study

- Themes
 - Advocacy
 - Evidence based and patient centered care
 - Assess risk and barriers to safety
 - Incorporate normal physiological aging into clinical decision making regarding chronic and acute disease management, promotion of health and wellness
 - Apply the ICF model to comprehensive patient care management for optimal functional outcomes

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Focus on the aging adults in your clinical practice

- Look **beyond** the reason for referral
 - Screen for falls and risk factors for other conditions (DM, Osteoporosis, etc.)... make appropriate referrals
 - Identify characteristics of frailty, depression, abuse/neglect, geriatric syndromes....make appropriate referrals
 - Plan for sustainable outcomes and increase in safe physical activity/participation through education and exercise prescription


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Perceived and Real Limitations to Activity and Participation

- Independence vs. assistance
- Difficulty/effort
- Risk of injury/pain
- Fear/anxiety
- Timeliness
- Safety
- Low expectations/self efficacy
- Value to the patient



Costello, 2011

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Optimal Outcomes

Decreased cost and burden to the healthcare system by helping patients/clients to

- 1) achieve and restore optimal functional capacity
- 2) minimize impairments, functional limitations and disabilities related to congenital and acquired conditions
- 3) maintain health (thereby preventing further deterioration or future illness) and
- 4) create appropriate environmental adaptation to enhance independent function

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CALL TO ACTION (Carole Lewis)

- “Embrace the unprecedented professional and personal opportunities presented by our aging population.”
- “... ageism is prejudice against not just our current patients but against our future selves. Age acceptance recognizes that one can be active, involved, curious, and a full participant in life until the very end.”

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Summary

- appreciate the scope of geriatric physical therapy needed to serve the diverse and extensive clinical and healthcare needs of this population
- delineate areas of social responsibility and advocacy to establish your practice in leadership within the profession and community to benefit the needs of geriatric patients/clients
- reflect on opportunities for education of peers and students to improve quality of care delivery to geriatric patients/clients in your local practice and/or institution

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Panel Discussion

Carol Jo Tichenor, PT, MA, FAPTA
Moderator

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Case Study 1

Kathy Brewer, PT, DPT
Board Certified Geriatric Clinical Specialist
Certified Exercise Expert for Aging Adults

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Case Study: Martha 82 yo F ...Curtiling frailty

- Prior activity
- Current activity
- **FUNCTIONAL MEASURES:**
 - % LASF
 - pain 7/10
 - 0 sit <> stand
 - lower thoracic kyphosis/loss of normal lumbar lordosis/forward head (tragus to wall of 14 cm)
 - timed loaded standing 30 sec w/no weight (functional upper thoracic strength measure)
- 48 lb. weight loss. (1/3 of her body weight) in 6 months

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Reason for Referral

- Referral from PM&R for LBP s/p L1 VCF – orthopedic approach to pain, spine health, mobility. Compensatory vs. restorative approach
- What else needs to be addressed to restore Martha to optimal QOL and function?
 - Activity/participation (ICF):
 - Fear of being alone
 - Depression/isolation
 - Physical activity to support general wellbeing
- Are Martha's frailty risks modifiable???

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Case Study: Martha 82 yo F ...Curtiling frailty

Interventions: (10 weeks/7 visits)

- Safe movement, posture correction, core stabilization strengthening
- Posterior chain strengthening – focus thoracic and axial extension
- Home safety/fall prevention, personal medical alert system
- LE strengthening and walking program

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Case Study: Martha 82 yo F ...Curtiling frailty

Outcomes:

Measure	Initial	Final
LASF	50%	0%
30 sec chair stand	0	12 (nl=9-14)
Tragus to wall	14 cm	11.5 cm
Timed loaded standing	30 sec (0 weight)	2 min (11b weights)
Lowback pain	7/10	< 1-2/10

•Participation: travel, office work, water aerobics 3x/wk, line dancing 1x/wk, daily walking 2.5 miles

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Case Study 2

Kathleen Shirley, PT, DPT
Board Certified Orthopaedic and Geriatric Clinical Specialist

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Geriatric Specialists in
OP Orthopedic/Sports Centers

• Case: 87 yo female with referring diagnosis of HA and neck pain – 4th referral to PT in 2 years. Reports ongoing decline with PT.
– Key findings

- Chronic HA, severe cervical rotation limitations, neck pain
- Multiple comorbidities – Obesity, HTN, Cardiac hx, Anxiety, deconditioning, multiple fall hx
- Functional limitations - recliner for 23/24 hours of the day
- BPPV

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Interventions/Outcomes

• Treatment/Outcomes- Seen 16 visits over 4 months

- Biopsychosocial model
 - Education patient and family – findings and expectations
 - Treatment of BPPV - This was key
 - Manual therapy, progressive ex(mobility and functional strength) including balance activity
 - Address fear avoidance through graded activity

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Monitoring over time to enhance sustainability – 8 years later



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Case 2 Key points

• Excellent sustainable outcomes are possible!
• Need Geriatric Champions in OP Ortho
• Biopsychosocial model focus
• It takes a TEAM

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