Embracing optimal aging in physical therapy care
*Kathy Brewer PT, DPT, MEd, GCS, CEEAA*

Az PTA Fall Conference 2017
Co-creating the Future of Patient Centered Care

How do YOU Define Older Adults?

Objectives

- Participants will have increased awareness of US demographics of aging adults and how healthcare delivery systems will be challenged over the next 2 decades.
- Utilizing the framework of the ICF model, participants will identify the unique contributions of physical therapy in meeting the medical, functional and wellness needs of aging adults throughout the continuum of care.
- Participants will recognize and implement opportunities for physical therapy screening, assessment and skilled interventions to optimize the aging experience within their practice.
- Participants will apply a patient centered approach, engaging patients to be active partners in their chronic health condition management and behavioral change.
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+)

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

• 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.

Aging should be considered a lifespan experience!
The Silver Tsunami…

(Contributions from Tamara Gravano, Greg Hartley, Heather Knight, Jackie Osborne, Becky Olson-Kelllogg)

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)
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 ≥95th 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.

ADULTS AND PHYSICAL ACTIVITY

- Studied nearly 1.8 million (18+) to see if exercise vital signs (EVS) included in electronic medical record provide an estimate of physical activity (PA) levels (face and discriminate validity of tool)

  Categorized EVS into:
  - Completely inactive (0 min of exercise/wk)
  - Insufficiently active (more than 0, less than 150 min/wk)
  - Sufficiently active (150 min or more/wk)

- Found:
  - 36.3% completely inactive; 33.3% insufficiently active; 30.4% sufficiently active
  - Being physically inactive more common if older, obese, of a racial/ethnic minority, and higher disease burden

  Coleman KJ, 2012
“Geriatric Syndromes” of Concern to Physical Therapists

- Sarcopenia
- Falls
- Dementia/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.”
Internal (Personal Factors)
- Fear/anxiety
- Risk of injury/pain
- Self discipline
- Low motivation
- Intimidation
- Cognitive limitations
- Low expectations/self efficacy

External (Support & Environment)
- Accessible community
- Transportation to necessary services
- Social/family support
- Low expectations

Chronic Disease Management...
- Aging with multiple comorbidities
- Risk for accumulations of functional limitations
- May involve complex psychological and social issues
- Functional outcomes tools provide some guidance toward scores to decrease burden of care/increase independence, decrease risk for fall etc.
- Goals: correlate to safe function and QOL

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

OPPORTUNITY
… 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.”

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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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**Figure 1-2** Slippary slope of aging depicts the general decline in overall physiological ability observed with increasing age and its impact on function.

(Adapted from Schwabert RS: Sarcopenia and physical performance in old age: introduction. Muscle Nerve 1997)

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**Lifespan vs. Healthspan**

Health of your life

Lifespan

Limited by:
- Longevity
- Disease
- Disability
- Frailty

Compression of Morbidity

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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**The message:** Poor health is **NOT** inevitable with aging

**PT role:** education and counseling to enable patients to assume greater responsibility for their health status through understanding risks and benefits of critical health behaviors and lifestyle habits

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Holistic Approach

Reducing symptoms and restoring function in an acute episode
+ Managing comorbidities and screening for risk of additional health problems

= Moving the patient closer to a state of optimal health, independence and quality of life

The health care system today often fails to provide high-quality care to older adults, and services are often delivered by many different providers without coordination. The committee envisions the following key principles for the care of older adults in the future:

– The health needs of the older population need to be addressed comprehensively.
– Services need to be provided efficiently.
– Older persons need to be encouraged to be active partners in their own care

Institute of Medicine 2008

“Practice begins and ends with patients!”

– Active listening - hx, S/S, mechanism of injury, support system, previous response to tx
– Understand the context of the patient's lives in designing and implementing treatment programs
– Collaborate with and educate patients, families/ caregivers re: regaining function, QOL, realistic expectations and accountability
– No judgment (labeling) of patients who are difficult, complex or noncompliant
– Keenly observe and skillfully use one's hands and body to facilitate patient's function and movement
– Proficient in self reflection

Jensen et al, 2000
**Optimal Outcomes**

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

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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Reduced physical function is no longer considered a natural consequence of aging

- Improves balance
- Improves gait speed
- Increases endurance
- Reduces risk for falls
- Reduces premature mortality caused by chronic and acute illness
- Maintains independence
- Extends life expectancy
- Maintains quality of life.

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**Never too Early - Never too Late**

Wellness

- Functional Ability
- Mental & Cognitive Health
- Independence & Quality of Life
Case Study: Martha 82 yo F ...Curtailing frailty

- Referral from PM&R for lbp s/p L1 VCF (4 mo)
- FUNCTIONAL MEASURES: 50% 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
- Prior activity - Regular fitness consists of walking 1.5 miles twice daily. Patient is typically quite active socially and in the community with neighbors, friends and family. She works in the business office at her retirement park once weekly.
- Current activity - patient reports limiting her walking to approximately 0.25 miles and limiting her community activity and errands due to pain. She also feels withdrawn from social activity and her adjustment to her husband's passing.
- 48 lb. weight loss. (1/3 of her body weight) in 6 months

Interventions:
- Safe movement, posture correction, core stabilization strengthening
- Posterior chain strengthening – focus thoracic and axial extension
- Home safety/fall prevention, Life Alert
- LE strengthening and walking program

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

Measure | Initial | Final
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LASF | 50% | 0%
30 sec chair stand | 0 | 12 (a=4-16)
Tragus to wall | 14 | 11.5 cm
Timed loaded stand | 30 sec (0 weight) | 2 min (1lb weights)
Lumbal pain | 7/10 | <1-2/10

KEY REFERENCES