A LOOK AT OLDER ADULTS
The Number of Persons 65+ is Growing

Older Adult Population Demographics [2010]
- Defined as 65 years of age and older
- 40 Million older adults in US (13% of total population)
- More women than men (58-67%)
- 80% white, 9% African American, 7% Hispanic, 4% Other
- 80% high school graduates; 20% have college degrees
- Around 25% are employed
- 60% married, 30% live alone
- 10% in poverty


What do we know about today’s older Americans?
- Although older adults are only 13% of our population
  - 26% of physician office visits
  - 35% of all hospital stays
  - 34% of all prescriptions
  - 38% of all emergency medical service responses
  - 70% of all home health services
  - 90% of all nursing home use
- Have multiple chronic conditions and experience more mental health conditions
  - 66% of older adults have multiple chronic conditions (versus 25% overall)
  - 20% meet the criteria for a psychological disorder

Sources: Institute of Medicine, Reforming for an Aging America: Building the Health Care Workforce, 2008, accessed at http://www.nap.edu/catalog/12089.html
Older People Are Different

- Atypical presentation of illness
- Multiple concurrent problems
- Non-specific symptoms
- Hidden illness
- Under-reporting
- Multiple “losses” condensed into a short time span
- Expected physiologic aging changes
- Social roles

Normal Effects of Aging on the Body

Special Issues of Older People

- Geriatric syndromes:
  - Functional impairment
  - Dementia
  - Confusion
  - Sleep disorders
  - Problems with eating or feeding
  - Incontinence
  - Osteoporosis
  - Pain
  - Falls
  - Decubitus ulcers and other skin breakdown
Special issues of Older Adults

- 88% of all older adults have at least one chronic illness
- 60-65% have 2+ chronic conditions
- 50% of persons > age 85 have dementia
- 50% of persons > age 65 are malnourished
- 30% of persons > age 65 have urine control issues
- 50% of persons > age 65 suffer from chronic pain
- 7-10% of persons > age 65 are victims of elder mistreatment
- 33% of persons > age 65 fall annually
- Older adults consume 4-6 medications daily

Older Adults are More Likely to Have Multiple Chronic Conditions

People with Multiple Chronic Illnesses Are More Likely to Have Activity Limitations
OT ROLES IN OLDER ADULT ASSESSMENT

Occupational Therapy in Productive Aging: The Need

- "By 2030, the number of older Americans will have more than doubled to 70 million, or one in every five Americans" (Ad Hoc Group on Aging, 2007, p. 1).
- "Occupational therapists facilitate optimal occupational performance and community participation across the full spectrum of ability, from healthy adults actively engaged in their communities to those who are coping with serious physical and mental health conditions in more supported environments like assisted living facilities and nursing homes" (Ad Hoc Group on Aging, 2007, p. 1).
OT Contribution

- Believe in unlimited potential for human occupation:
  - Even during and after serious illness or injury
- Use client/person centered approach.
  - Individualize the intervention plan and program to fit the person; do not make person “fit into” the plan/program.
- Use assessments that identify “uniqueness” of person
  - Help identify personal goals, values, habits, routines and available support system as well as potential barriers such as attitudes, psychiatric symptoms and motivation to recover.
- Identify a wide range of occupations for intervention
  - That can be selectively used (individualized) to the client/person
- “Check in” with the person frequently
  - Track progress and make changes in intervention plan and program as needed.

Core Skills of Occupational Therapy

- Client-therapist collaboration
- Assessment of occupational performance
- Enabling clients to investigate, accomplish, and balance activities of daily living
- Problem identification and problem solving specific to occupational performance difficulties
- Therapeutic use of activity/occupation (including activity analysis, adaptation and grading)
- Facilitating activity/occupation-based groups
- Analysis and adaptation of environments to increase function and social participation


SMALL IMPROVEMENTS CAN MAKE A BIG DIFFERENCE

- For older patients, major changes in health or function may not be realistic
- “Small” changes can transform quality of life:
  - Regaining transfer ability can mean difference between going home or to a nursing home
  - Regaining ability to oppose thumb and fingers can mean difference between eating independently and being fed
Chronic Health Conditions and OT

- Addressing ADL and IADL performance
- Teaching energy conservation and activity modification strategies
- Individualizing adaptations
- Teaching health management tasks
- Developing coping strategies, behaviors, habits, routines, and lifestyle adaptations

Prescription and OTC Drug Use

- Evolution of Prescribing
  - 65+ consume more prescribed and OTC drugs than any other age group
  - Most are for mood-changing or psychoactive
    - Most don’t intend to abuse
- Patterns of Use
  - Unintentional misuse
  - Misunderstood directions and multiple prescriptions contribute to problem
- Differences in dosage for elders may not be understood
  - Sleep disturbances common complaint
    - May be related to other conditions of aging (depression, Alzheimer’s)
  - OTCs: not much known about interaction, lack of research.

Polypharmacy Effects

Drug reactions in the elderly often produce effects that simulate the conventional image of growing old:

- unsteadiness
- dizziness
- confusion
- nervousness
- fatigue
- insomnia
- drowsiness
- falls
- depression
- incontinence
- malaise
Substance Abuse in Older Adults

- Although alcohol abuse and other forms of substance abuse are significant problems for many older persons, the prevalence actually appears to decline after age 60
  - Accurate data about the rate of substance abuse among older adults is difficult to obtain because many elderly persons do not suspect or admit they have such a problem
- A leading kind of substance abuse in the elderly is the misuse of prescription drugs
  - Most often it is unintentional

Alcohol and Drug Interactions in Older Adults

- 77% of older adult prescription drug users are prescribed drugs that interact with alcohol
- 25% of community dwelling older adults at risk for alcohol-drug interactions
- 38% of older people in retirement communities drink alcohol and also use alcohol-interacting drugs
- 60% of older people referred for prescription drug abuse showed evidence of alcohol use

Effects on Older Adults

Physical, psychological, social impacts:

- Falls, injuries, accidents, medical conditions worsen
- Anxiety, mood lability, depression, personality changes
- Relationships deteriorate, isolation increases, cycle repeats and reinforces itself
**Falls - Risk Factors**
- Medications (sedatives, hypotensives, multiple)
- History of fall
- Cognitive or visual impairment
- Multiple co-morbidities
- Lower extremity weakness
- Balance or gait abnormality
- ADL impairment
- Depression/Anxiety
- Neurological conditions
- Orthostatic hypotension
- Arthritis
- Age >80
- Female Gender
- Physical inactivity
- Incontinence
- Environmental Hazards
- Use of assistive device
- Acute illness, such as UI, Pneumonia, etc.

**Complications of Falls**
- **Medical**
  - Fractures
  - Subdural hematoma
  - Sprains, bruises, hematomas, lacerations
- **Psychological**
  - Fear of further falling
  - Decreased confidence → isolation and withdrawal → depression → reluctance to go outdoors
- **Social**
  - Loss of independence
  - Risk of nursing home placement
- **Increased immobilization**
  - Further loss of muscle tone and strength
  - DVT/pulmonary embolism
  - Hypothermia
  - Dehydration
  - Osteoporosis
  - Pulmonary infections

**Falls and OT**
- **Fall Risk Assessment**
  - Pertinent medical/fall history
  - Medication review
  - Assessments:
    - E.g.: Berg’s Balance Test, Timed-Up-Go
      - Orthostatic Hypotension
      - Body structures
    - Body Functions
    - Home Environmental Safety
    - Support system
- **Proactive Fall Interventions**
- **Patient and Caregiver Education**
- **Evaluation of Fall Prevention Interventions and Programs**
Multiple Risk Factor Reduction

Medication adjustment
Optimize vision and hearing
Environmental modifications

Exercise program/PT
Identify and treat orthostasis
Treat pain, incontinence

Pain in Older Adults
- Pain is more common among the elderly than among younger adults.
- Pain can lead to social isolation, depression, poly-pharmacy, decreased functional status, and deconditioning.
- The cause of pain may be difficult to identify and is usually caused by multiple factors.
- Inadequate treatment of pain is common among the elderly.
- Education and active caregiver involvement can help reduce pain and improve quality of life.

Pain Assessment for Older Adults
- Decrease in endurance and strength (inability to perform ADLs)
- Insomnia
- Anxiety
- Decreased appetite, loss of taste for food
- Weight loss
- Depression
- Inactivity, deconditioning and falls
- Decreased quality of life
Pain in Older Adults

1. Contributes to depression, anxiety, decreased socialization, and decreased functional ability.
2. Those with dementia/cognitive impairment may not be able to express pain.
3. Smaller doses of opiates may be needed due to decreased drug clearance/metabolism.
4. Elderly are at risk of undertreatment of pain.
5. Pain treatment is a major element in improving QOL.

Pain and OT

- Evaluate impact of pain on activities and quality of life.
- Evaluate attitude toward pain and degree of self-efficacy.
- Teach coping methods
Consequences of Poor Sleep in older adults

- Difficulty sustaining attention and slowed response time
- Decreased ability to accomplish daily tasks
- Impairments in memory and concentration
- Increased consumption of healthcare resources
- Higher incidence of symptoms related to depression and anxiety
- Increased risk of falls (even after controlling for medication use, age, difficulty walking, difficulty seeing and depression)
- Shorter survival/increased institutionalization rate
- Inability to enjoy social relationships/decreased QOL
- Increased incidence of cognitive decline
- Increased incidence of pain
- Increased consumption of healthcare resources
- Higher incidence of symptoms related to depression and anxiety
- Increased risk of falls (even after controlling for medication use, age, difficulty walking, difficulty seeing and depression)
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- Increased incidence of cognitive decline
- Increased incidence of pain


Sleep and OT

- Evaluate and address functional ramifications of sleep disorders
- Evaluate and address sleep environment
- Evaluate and address sleep behaviors
- Assess for situational factors
- Assess ADLs, particularly for bed mobility and toileting
- Train residential staff
- Educate patients and caregivers

Functional Assessment

- Activities of Daily Living (ADLs) – basic self care
- Instrumental Activities of Daily Living (IADLs) – care required to live independently
- Sensory deficits (hearing, vision, mobility)
- Driving
- Compensatory strategies
Function with Aging

![Bar graph showing the percentage of difficulty in ADL and IADL problems with aging.

Functional assessment and OT

- Comprehensive
- Include details related to common activities in specific locations
- Evaluate even if you are told the patient has an ability.
- Education patient and caregiver(s) (if possible).

Safety (returning home, living alone, driving)

- Home Safety Evaluation
- Reduce Safety Hazards - E.g.: Throw rugs, lighting, pets, oxygen tubing, clutter, extension cords, etc.
- Medication management
- Proper footwear
- Vision/Hearing
- Assistive Devices
- Nutrition/hydration status
- Level of Care
Signs that an Older Adult may need assistance at home

- Altered eating habits
- Neglected personal hygiene
- Neglected home
- Exhibited inappropriate behavior
- Changed relationship patterns
- Physical problems
- Decreased or stopped participating in previously important activities
- Exhibited forgetfulness
- Mishandled finances
- Unusual or more frequent purchases

Vision and Assistive Devices

- Evaluate how visual impairment limits ADL/IADLs
- Evaluate environment
- Interventions to improve visual attention and efficiency in visual processing.
- Evaluate for need for assistive devices
- Fitting/customizing device
- Training and technical support

Swallowing

- Dysphagia screening, in-depth assessment, and interventions
  - Individualized swallowing strategies
  - Modified diet recommendations
  - Environmental adaptations
  - Exercises to facilitate eating
  - Body positioning strategies
  - Caregiver training
Driving and OT

- Visual acuity
- Flexibility and strength
- Reaction time
- Knowledge
- Appreciation of medical diagnosis
- Judgment
- Driving efficacy

Residential considerations

- Consideration of patient needs
- Consideration of environmental factors
- Consideration of safety/independence
- ADLs

Cognition

- Cognitive Aging

  Cognitive Impairment means there is a change in how a person thinks, reacts to emotions, or behaves.

  Can range from mild memory problems to an inability to think independently.
Functional Consequences of Cognitive Impairment

- Forgetting
  - Things already learned, Appointments, Self-care (including medication)
- Getting Lost
- Following Commands/Instructions
- Mood
  - Depression, Anxiety
- Unpleasant Interpersonal Behavior
  - Anger, Paranoia, Inappropriate Sexual Remarks/Actions
- Capacity Limitations
  - Decision-Making: Financial, Medical
- Communication Deficits
  - Receptive, Expressive

Alzheimer’s Association’s 10 Warning Signs

- Memory loss that affects job skills
- Difficulty performing familiar tasks
- Problems with language
- Disorientation to place and time
- Poor or decreased judgment
- Problems with abstract thinking
- Misplacing things
- Changes in mood or behavior
- Changes in personality
- Loss of initiative

Cognition and OT

- Administer assessments and intervention that focus on cognition as it relates to participation and performance
- Focus on function-based outcomes
- Therapeutic goal to enhance occupational (activity) performance
- Evaluation is multi-perspective and multi-method
Cognitive Areas to Assess

- Mental Status/Orientation
- Sensory Skills
- Motor Skills/Balance
- Attention
- Processing Speed
- Memory
- Language
- Visual Spatial Reasoning
- Executive Functioning
- Reasoning/Judgement

Factors that Influence Performance

- Poor vision or hearing
- Impaired gross- or fine-motor skills
- Medication
- Intellectual disability
- Severely impaired language functioning
- Severely impaired attention
- Significant Impulsivity
- Poor effort
- Lack of cooperation
- Fatigue
- Severely slowed psychomotor speed
- Psychological impairments
- Literacy

Factors to consider when choosing tools

1. Tests need to be appropriate for age:
   a. Valid: does it measure what it claims to?
   b. Reliable: over time & between administrators
   c. Standardization sample/norms
   d. Developed specifically for older adults
2. Time to administer
3. Skill required & ease of administration
4. Appropriate for culture, language & education
5. Clinical utility vs. research
6. Stimulus materials
**Instruments**

- Activities of Daily Living/Participation/Adaptive Behavior
  - Texas Functional Living Scales (TFLS)
  - Independent Living Scales (ILS)
  - Bruininks Motor Ability Test (BMAT)
  - Vineland Adaptive Behavior Scales, Second Ed. (Vineland™-II)
  - Adaptive Behavior Assessment System, Third Ed. (ABAS-3)
  - Functional Independence Measure (FIM)

- Brief Cognition Assessment/Screening
  - Brief Cognitive Status Exam (BCSE)
  - Mini Mental State Examination (MMSE)
  - Montreal Cognitive Assessment (MoCA)
  - Cognitive Linguistic Quick Test (CLQT)
  - Cognitive Assessment of Minnesota (CAM)
  - Beery-Buktenica Developmental Test of Visual-Motor Integration, Sixth Ed. (BEERY™ VMI)

**Instruments cont.**

- Comprehensive Cognitive Assessment
  - Repeatable Battery for the Assessment of Neuropsychological Status Update (RBANS® Update)

- Memory Assessment
  - Brief Cognitive Status Exam (BCSE)
  - Rivermead Behavioural Memory Test-Third Edition (RBMT-3)
  - Contextual Memory Test (CMT)

- Executive Function Assessment
  - Behavioural Assessment of the Dysexecutive Syndrome (BADS)

- Driving
  - Rookwood Driving Battery

**Instruments Medical**

- Sensory Assessment

- Sleep (clinical interview, sleep diaries, lab sleep studies)
  - Epworth Sleepiness Scale (ESS)
  - Pittsburgh Sleep Quality Index (PSQI)

- Pain
  - Pain Patient Profile (P3)
  - Visual Analog Pain Scale
  - Wong-Baker Faces Pain Scale
  - Pain Assessment in Advanced Dementia (PAINAD)
INTEGRATING RESULTS AND MAKING REFERRALS

Comprehensive Geriatric Assessment

- Current symptoms/illnesses & their functional impact.
- Current medications, their indications and effects.
- Relevant past medical history.
- Recent and impending life changes.
- Objective measure of overall personal and social functionality.
- Current and future living environment and its appropriateness to function and prognosis.
Comprehensive Geriatric Assessment

- Family situation and availability.
- Current caregiver network including its deficiencies.
- Objective measure of cognitive status.
- Objective assessment of mobility and balance.
- Rehabilitative status and prognosis if ill or disabled.
- Current emotional health and substance abuse.
- Nutritional status and needs.
- Disease risk factors, screening status, and health promotion activities.
- Services required and received.
- End-of-life vs. palliative care considerations if appropriate.

Areas of Assessment

- Functional assessment
  - Activities of Daily Living (ADL): Feeding, dressing, ambulating, toileting, bathing, transfer, continence, grooming, communication
  - Instrumental ADL (IADL): Cooking, cleaning, shopping, meal prep, telephone use, laundry, managing money, managing medications, ability to travel
- Mobility, gait and balance
- Sensory and Language impairments
- Continence
- Nutrition
- Cognitive/Behavior problems
- Depression
- Caregivers
- Environmental
- Additional areas of safety

Additional areas of assessment or consideration for referral

- Medication
- Substance use/abuse
- Suicide
- Firearm presence/safety
- Mood
- Nutrition
- Capacity
- SLP
- Neuropsych
- Psychiatry
- Neurology
- Memory Clinic
- Social work
Resources

- AOTA and Aging:
  - http://www.aota.org/About-Occupational-Therapy/Patients-Clients/Aging.aspx

- Older Driver Resources:
  - http://www.aota.org/older-driver
  - www.carfit.org

- Falls Prevention:
  - Stepping On:
      was the Program Developed?
  - AOTA Resources
    - http://www.aota.org/Practice/Productive-Aging/Falls.aspx
  - CDC Compendium of Effective Community-based Interventions
      042008-a.pdf

Resources

- American Society on Aging: http://www.asaging.org/index.cfm
- Alzheimer’s Association
- Center for Disease Control: cdc.gov/aging
- National Institute on Aging at NIH: http://nia.nih.gov
- Gerontological Society of America: http://www.geron.org/
- Substance Abuse and Mental Health Services Administration (SAMHSA): http://www.health.gov/
- U.S. Census Bureau (2012), Projections of the Population by Age and Sex for the United States: 2015 to 2060 (NP2012-T12).