

FALLS PREVENTION FOR THE RECREATIONAL THERAPIST WORKING WITH OLDER ADULTS

DAWN DEVRIES, DHA, DFRT, CTRS
ASSOCIATE PROFESSOR & PROGRAM CHAIR, THERAPEUTIC RECREATION
GRAND VALLEY STATE UNIVERSITY
DEVRIDAW@GVSU.EDU

SESSION DESCRIPTION

- Falls are a leading cause of disability and hospitalization for older adults, and can lead to placement in a nursing home. Within the recreational therapy toolbox, there are a number of interventions that recreational therapists can use and implement to reduce the risk of falls among older adults in the community and within institutional settings. This session will look at assessments for falls prevention, interventions, treatment plans and evaluation to improve the functioning and quality of life of older adults.

LEARNING OUTCOMES

Participants will be able to:

1. Describe 3 signs of older adults who are at risk for falling.
2. Identify 2 program goals for a falls prevention program.
3. Explain 2 tools for assessing/evaluating falls risk among older adults.

DEFINITION

- Fall = “unintentionally coming to rest on the ground, floor, or other lower level, but not as a result of an overwhelming external force” (such as a push)
- Lose of balance but corrected with assistance/intervention from staff = fall (CMS, 2007)
- Does not have to include injury
- If found on the floor, a fall is considered to have happened
 - CMS Revisions to Appendix PP – Guidance to Surveyors for LTCF (2007) & MDS Manual (p. 311 – F689)

FALLS STATISTICS

- 1 in 3 adults falls each year
- 1 in 2 adults 80+ y.o.
- 1 out of 10 falls => serious injury that requires hospitalization
 - 95% of hip fx d/t falls (usually sideways)
- Leading cause of injury and accidental death in adults > 65 y.o.
 - 27,000 OA per year as result of falls
 - 3 M in ER for fall injuries
- Women fall more than men
- Most common cause of TBI
- 3x more likely in care facility

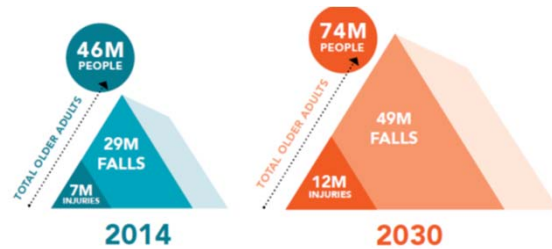
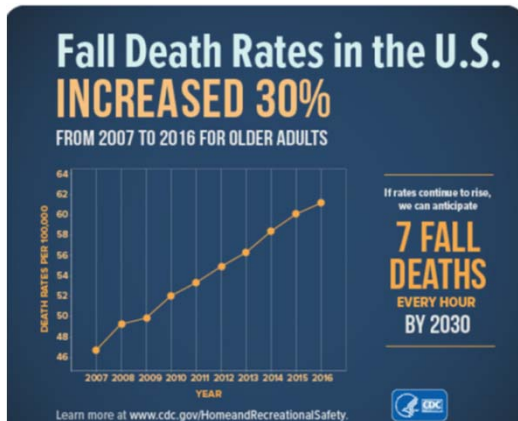


IMPACT OF FALLS

- Medical costs = \$50,000,000,000 (BILLION!) (2015)
- Medicare and Medicaid paid for 75% of those costs or \$38B
- Hospital costs = 2/3 of all costs
- Deaths from falls increase 30% between 2007 – 2016 (CDC, 2018)
 - SNF residents = 20% of fall deaths
- Physical, emotional toll



IMPACT OF FALLS



SYMPTOMS OF IMPAIRED BALANCE



- Dizziness/Vertigo
- Falling
- Feeling like going to fall/ Unsteadiness
- Lightheadedness
- Faintness
- Feeling of floating
- Blurred Vision
- Confusion
- Disorientation

TYPES OF RISK FACTORS - PHYSICAL

Changes in body that cause person to fall

- Age (age > 80 y.o.)
- Sensory Issues
 - Vision
 - Hearing
 - Vestibular: vertigo
- Physical factors
 - History of falls
 - Deconditioning
 - Gait
 - Weakness
 - Balance
 - Medications
 - Reflexes
- Health conditions
 - Diabetes
 - Heart disease
 - Thyroid issues
 - Neurological issues
 - BP changes/High BP
 - Foot pain
 - Stroke
 - Head injuries
 - MS
 - Arthritis
 - Depression
 - Osteoporosis
 - Vitamin D deficiency
 - Pain
 - Wandering
 - Dementia

TYPES OF RISK FACTORS

Behavioral Factors

- Confusion
- Inactivity
- Substance Use
- Sleep
- Fear....

Environmental Factors

- Inactivity
- Safety issues
- Substance use
- Sleep
- Footwear
- Overstimulation in SNFs
- In SNFs, up to 27% of falls occur due to lightning or slippery floors

FEAR OF FALLING

- Lasting concern about falling may cause a person to stop doing activities remain able to do



- May stop a person from engaging in activities
- Leads to leg weakness with inactivity
- Inactivity leads to falls
- May contribute to loneliness and/or depression

MEDICATIONS

- Sedatives and hypnotics
- Antidepressants
- Anticonvulsants
- Antipsychotics
- Benzodiazepines
- Opioids
- Muscle relaxants
- Blood pressure meds



FALL RISK INCREASES...



- Change in medications
- Illness or infection
- Pain
- Lack of sleep
- Sadness or worry
- Reduced activity level
- Change in use of assistive device
- Move to new home/facility

STRATEGIES FOR FALLS REDUCTION

Clinical and Community Environments

- Falls Risk Assessment
- Effective Interventions
- CDC (2018) study showed that a single intervention could prevent falls!

At Home

- Remove clutter
- Carpets/tip hazards
- Don't stand on chairs
- Install grab bars
- Use assistive devices
- Use nightlights
- Wipe up spills
- Stay active
- Know limitations
- Footwear



CARE FACILITIES

- SNFs are expected to provide an environment free of hazards
- Must provide interventions (i.e., staff training, assistive devices, review procedures)
- Must document
- Provide adequate supervision
- Following a fall, assess injuries and cause, provide treatment, address contributing factors, care plan and/or facility practices adjusted

ATTENTION TO FALLS PREVENTION

- IMPACT Act (2014) requires specific quality measures
 - Accountable Care Organizations quality measure on falls screening
 - PACE programs required to report (falls w/ and w/o injury)
- SNF Regulations (from State Operations Manual)
 - Immediate Jeopardy for SNFs under Failure to Prevent Neglect
 - Repeated falls without intervention
 - In RAPs, evaluate cause and effects
 - Falls are NOT a reason for restraints (F604 Respect & Dignity, F700 Restraints/ Side Rail Use)
 - Medication evaluation promoted throughout related to falls
 - Part of assessment (F688)
 - Staffing levels and training (F725 Nursing Services)
 - Sample selection of residents to review for survey – falls with or without injury
 - Fall in last 90 days or since admission

ROLE OF RECREATIONAL THERAPY IN FALLS PREVENTION

ASSESSMENT

- Referral and physician's order
- Self-Evaluation
 - Stay Independent brochure
- What do you want to know...
 - Previous history of falls
 - Fear of falling
 - Medications
 - Medical Conditions
 - Sensory impairments
 - Mobility level
 - Falls assessment
- Timed Up and Go
- 4-Stage Balance Test
- FIM
- Comprehensive Evaluation in Recreational Therapy – Physical Disabilities (CERT)

TIMED UP & GO

*DYNAMIC BALANCE & MOBILITY

1. Stand up from chair
 2. Walk to the line on floor at normal pace (10 feet away).
 3. Turn back.
 4. Walk back to chair at normal pace.
 5. Sit down.
- Time from go to sit.
- Watch posture, stability, gait, stride length
 - Check for...
 - Tentative pace
 - Balance
 - Short strides
 - Little – no arm swing
 - Steadying self
 - Shuffling

4-STAGE BALANCE TEST

*STATIC BALANCE



① Stand with your feet side-by-side.



② Place the instep of one foot so it is touching the big toe of the other foot.



③ Tandem stand: Place one foot in front of the other, heel touching toe.



④ Stand on one foot.

- Stand in each position for 10 seconds
 - May hold arms out to help with balance
 - Timed and recorded
- At risk for falls if cannot do any for 10 seconds

30-SECOND CHAIR STAND

*LEG STRENGTH AND ENDURANCE

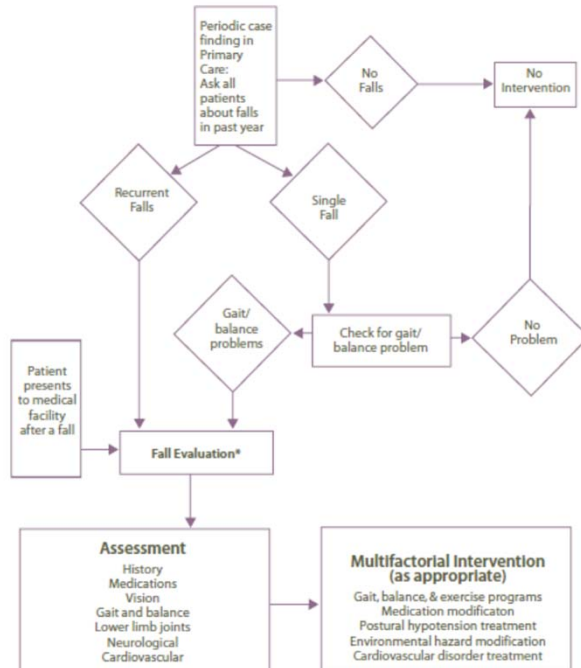


1. Sit in the middle of chair
2. Place hands on opposite shoulder, across chest.
3. Keep feet flat on the floor.
4. Keep your back straight and arms across your chest.
5. On "Go", rise to full standing position and then sit back down.
6. Repeat for 30 seconds.

AGE	MEN	WOMEN
60-64	< 14	< 12
65-69	< 12	< 11
70-74	< 12	< 10
75-79	< 11	< 10
80-84	< 10	< 9
85-89	< 8	< 8
90-94	< 7	< 4

A below average score indicates a risk for falls.

From: Washington State Department of Health. (2002). Falls among older adults: Strategies for prevention. Olympia, WA: Author.



PRACTICE

PLANNING

- Key elements impacting balance:
 - Base of support
 - Center of gravity
- Early intervention and identification of risk
- Purpose of falls prevention:
 - Reduce falls
 - Improve physical functioning
 - Maintain abilities
- Treatment Focus
 - Physical
 - Cognitive
 - Leisure Education
 - Psychosocial
- Individual
 - Assessment and evaluation
 - Walking
 - Exercise
- Groups
 - Exercise
 - Education

ACTIVITY

EBP FALLS PREVENTION PROGRAMS

- A Matter of Balance (8 wks. x 2x/wk.)
- Enhance Fitness (3x/wk. x 1 hr.)
- FallScope (2 trng sessions)
- Fit & Strong!
- Healthy Steps for OA (2 – 2 hr. workshops)
- Healthy Steps in Motion (1 hr. 2x/wk. x 8 wk.)
- Stay Active and Independent for Life (SAIL) (3x/wk. x 1 hr./wk.)
- Stepping On (2 hr. x 1 wk. x 7 wks.)
- Tai Chi for Arthritis
- YMCA Moving for Better Balance (12 wk.)

IMPLEMENTATION



PROGRAMMING IDEAS

Community Based

- Exercise programs
- Balance
- Energy conservation
- Environmental evaluation
- Practice with mobility devices
- Medication review
- Tai Chi/Yoga
- Dance

Care Based

- Staff training
- Gait training
- Mobility programs
- Exercise
- Medication review
- Wii (Summey, 2009)
- Seated Tai Chi/Yoga

EXERCISES FOR BALANCE

EVALUATION

- Program fidelity for EBP programs
- Program effective
- Return on investment

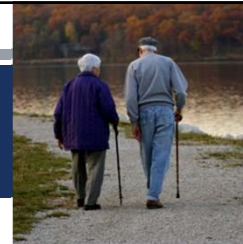


CASE STUDY

*ADAPTED FROM STEADI CASE STUDY

- Mrs. Jones is 86 years old, living in assisted living.
- She has a history of diabetes, HTN, CHF, depression, and CAD
- Background:
 - Increased falls: 3 falls in 6 months
 - Uses walker
 - Fear of falling
 - Difficult stepping up
 - On meds for DM, depression, blood thinners
- Assessment
 - Timed Up and Go: 18 seconds with walker; wide base, arm swing, stooped posture
 - 30 Second Chair Stand: unable to stand without using arms to push
 - 4 Stage Balance Test: 10 seconds side by side, losses balance after 4 seconds in semi-tandem stand

GETTING STARTED IN YOUR COMMUNITY



- Similar program to observe or partner
 - Training
 - Interdisciplinary approach
- Great resource: CMS, University of MN, & St. Stratis Health. (n.d.). *QAPI at a glance: A step by step guide to implementing quality assurance and performance improvement (QAPI) in your nursing home*
- Exercise interventions statistically significantly decrease a person's risk of falls by 12%, and number of falls by 19% (RAND, 2004a; RAND, 2004b)
 - Exercise most effective intervention (RAND, 2004a)
 - Provide overall cost savings to the health care system (RAND, 2004a)

PROMOTING RT

To Justify Recreational Therapy

- Scope of Practice
- NCTRC Job Analysis
- ATRA Standards of Practice
- ROI from hiring RT = \$30-70K to savings focusing on at-risk residents and non-pharmalogical interventions (Buettner & Legg, 2011)

To Your Administrator

- Your qualifications
- Impact of falls
 - Lawsuits for falls avg. \$350,000
 - 2.6 falls per SNF resident/year
- Impact of falls prevention
- Grants: AAA

REFERENCES

- Buettner, L., & Legg, T.J. (2011). Recreation therapy and MDS 3.0. *Long-Term Living*, 60(8), 38-41.
- CMS. (2007). *Pub. 100-07 State Operations Provider Certification, Transmittal 27*.
- Headley, C. M., & Keller, M. J. (2013). Improving older adults' balance and preventing falls. *Annual in Therapeutic Recreation*, 21, 80-87.
- RAND. (2004a). *Evidence report and evidence-based recommendations: Falls prevention interventions in the Medicare population*.
- RAND. (2004b). *Evidence report and evidence-based recommendations: Exercise programs for older adults: A systematic review and meta-analysis*.
- Summey, H. (2009). *A comparison of recreation therapy intervention using Nintendo Wii bowling with participation in a Tai Chi program on balance, enjoyment, and leisure competence of older adults in a community based setting*.

RESOURCES

- American Geriatrics Society. (2001). Guidelines for the Prevention of Falls in Older Persons. *Journal of the American Geriatrics Society*, 49(5), 664-672.
- Centers for Disease Control and Prevention (CDC) 1-800-232-4636 www.cdc.gov
 - *Preventing Falls: A Guide to Implementing Effective Community-Based Fall Prevention Programs*
- Dattilo, J., Martire, L., & Proctor, D., (2012). B-Active: An interdisciplinary approach to healthy aging. *Therapeutic Recreation Journal*, 46(3), 191-201.
- National Resource Center on Supportive Housing and Home Modifications 1-213-740-1364 www.homemods.org
- Rebuilding Together 1-800-473-4229 www.rebuildingtogether.org
- National Falls Prevention Resource Center 1-571-527-3900 www.ncoa.org/center-for-healthy-aging/falls-resource-center/