Session E1: Transforming and Improving Physical Function with Frail Elders

ATRA Webinar
April 23, 2014
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Learning Outcomes

At the end of this session, participants will be able to:
1. Define “frailty” and modify exercises for frail clients
2. List 3 characteristics and safety tips for 3 specific medical diagnoses
3. Identify and perform at least 3 exercises that are safe and effective in improving physical function

Gerokinesiology

“...a specialized area of study within the larger discipline of kinesiology that focuses on understanding how physical activity influences all aspects of health and well-being in the older adult population and the aging process in general.”

Hierarchy of Physical Function

What does “Frailty” look like?

Common disorders such as Parkinson’s Disease, Spinal Stenosis, Dementia, Stroke, Loss of Mobility & Function due to sedentary lifestyle - sometimes are invisible to the eye!

Frailty is the confluence of many factors impacting one’s life and function

- 90 Years of Age
- Clinical Life Long Depression
- Poor Social Skills
- Loss of Muscle Mass (Sarcopenia)
- Osteoporosis
- Previous Falls
- Failure to Thrive
- Limited Coping Skills
- Dehydration due to poor intake, Chronic UTI

Frailty Syndrome
Frailty

- A Medical Condition
- Sensory Losses
- Chronic Disorders
- Adverse Changes in Musculoskeletal System
- Mental Health Issues
- Sarcopenia (loss of muscle mass)
- Intellectual/Cognitive Deficits
- Very Advanced Chronological Age
- Sedentary Lifestyle
- Poor Diet and Fluid Intake

Sarcopenia

- “Loss of Muscle Mass”
- Greatest Predictor of Frailty
- “Resistance Training can have a positive effect on all aspects of the neuromuscular decline that accompanies aging.” - Joseph F. Signorile. Bending the Aging Curve, Human Kinetics. 137

Start with Posture Exercises, Breathing & Body Awareness
Spinal Health

- Good Posture Improves Function as the spinal cord is the center and stabilizer of all movement along with being the conduit for the central nervous system.
- Any improvement in posture will have a positive impact on the spine
- Proper head alignment will decrease falls

Poor Posture can impact the muscles that are reaching out of their normal range of motion to maintain balance

Poor Posture can limit and decrease physical function

Posture

- Always cue to lift the chin up and look ahead
- Shoulders up back and down-avoid moving the shoulders forward as we are working to avoid this in creating good posture- “Rhomboids-W”
- Tighten the seat muscles
- Bring the tummy in
- Both feet on the ground
- Balance paper plates on heads to experience posture and body awareness
Breathing

Find creative ways to get participants to breathe:
- Pinwheels
- Counting with you
- AEIOU
- Laughing
- Laughter Yoga

Teaching Core to Frail Elders

• This is possible ☺
• Participants + you see fastest results when you start with seat work
• When the seat muscles are engaged and charged, the abdominal muscles contract too
• Stability before Mobility. Start with the core muscles and move from there
• Tighten and then move

More Core

• Hold a noodle or ball as a prop. This heightens focus and attention. Tighten your seat, bring your belly button in, chin up and with a straight spine, lift and move torso forward with the prop
• Do this same movement seated at front of chair and move torso from center to backwards movement to engage core
• Sit tall and all together do a few ‘ha’s’ or laughs to get the body awareness of the core
Babs
95 & working her core

Balance & Resiliency

Balance
• Balance exercises can be included in seated routines. And the progression is in a safe standing pose
• Lift the torso and move to one side and the other while keeping head upright
• Balance cushions to sit on and shift weight
• Alphabet Toes (one leg at a time)
Lower Body Strengthening

- Start with lower body strengthening: Glutes, Quads, Abductors/Adductors, Soleus, Gastrocnemius
- Seat walking
- Chair Stand & Modified Chair Stand

Upper Body Strengthening

- Chest Press, Overhead Press, Triceps, Biceps, Shoulder Raises, Rhomboids, Two Arm Row

Agility Training

- In a seated routine, these exercises are meant to increase speed and power to the movement. All of these can be standing if possible
- Stomp the Grapes
- Round the Clock
- Touch the disc and increase speed
The Role of Recreational Therapy in Transforming and Improving Physical Function

• CTRS is a member of rehab team and work closely with clients both receiving and dc’d from therapy

• CTRS is the professional designing wellness programs that include physical activity opportunities both in and out of group settings

• CTRS is working with clients at all levels of the Hierarchy of Physical Function

• CTRS is working in specialty of Gerokinesiology

• CTRS is creating TR interventions from evidence-based practice

Stretching and Flexibility

• Stretching and increasing flexibility is very important in maintaining and improving function

• Chin to Chest, Chin to Shoulder

• Side Stretch

• Half Hug

Common Medical Disorders: Arthritis

• Avoid fatiguing muscles as it can increase joint pain. Have shorter sessions of exercise and perhaps 2x daily

• Avoid over-stretching as this can damage supportive tissues

• Encourage slow movements

• Avoid keeping joints in the same position for too long
Common Medical Disorders: Osteoporosis

- Avoid exercises that increase spinal flexion (bending over at the waist). This can increase risk of vertebral fractures
- When picking up and lifting anything, keep it close to the torso to protect spinal cord-avoid overload of the back
- Seated resistance training is encouraged as they help build muscle strength and thereby increasing joint integrity
- Encourage bringing shoulders back and sit straight with a tight seat to protect the lower back

Common Medical Disorders: COPD

- Short sessions of exercise while monitoring breathing
- Avoid isometrics or weight above chest level as this may increase pressure to chest, increase blood pressure and make breathing more difficult
- Ask participant if they would like to sit by door or window if they are feeling anxious about air flow and ability to breath in group setting. Anxiety is common with pulmonary conditions

Props add the “Fun” Factor
Create Opportunities for Socialization

- Warm up exercises where you look to the left and right slowly while saying hello to the person next to you
- Water break and brain games such as listing all the words from a letter - "L", "E"
- Have participants tell you how they got their name or nickname
- Celebrate Birthdays
- Have themes for different classes
- Create a sense of community as a member of a fitness and wellness "club"

Resources

- *Eldergym*. Doug Schrift, PT. www.eldergym.com
- *ICAA- International Council of Active Aging*. www.ICAA.cc