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Seating & Mobility within the Long Term Care Facility

Vikram Pagpatan M.S, OTRL, ATP

Learning Objectives

- As a result of this course, participants will be able to:
  - Identify the postural abnormalities of individuals within seating evident in long term care settings.
  - Understand the impact of a poor sitting posture for individuals in long term care settings.
  - Highlight the effect those sitting postures on other functions of daily living.
  - Identify the contribution of a seating assessment and provision of the prescribed seating equipment in reducing pressure ulcers.
Older people are considered to be the fastest growing population group worldwide. As people age many are affected with physical illnesses and neurological conditions that are associated with deterioration in physical ability, function and wellbeing. With advancing age it is not unusual for seating needs to emerge at home or within institutional care (Martin et al, 2014).

More than 3.6 million people in the United States depend on a wheeled mobility device (wheelchair or scooter) to perform activities of daily living and instrumental activities of daily living (U.S. Census Bureau, 2010).

Seating and wheeled mobility (SWM) services provided by occupational therapy practitioners include specific positioning equipment, mobility devices, durable medical equipment (DME), and complex rehabilitation technology (CRT), used to optimize clients’ environmental access and their ability to perform daily occupations.

Seating systems or equipment are designed to meet individuals’ needs for postural support and alignment, skin integrity, function, and safety. Research shows the positive impact of equipment, such as wheelchairs, on the quality of life for individuals with mobility issues.

**What is a LTC Facility?**

- Nursing homes, skilled nursing facilities, and assisted living facilities, (collectively known as long-term care facilities, LTCFs) provide a variety of services, both medical and personal care, to people who are unable to manage independently in the community.  
  (Center for Disease Control and Prevention)

**Why a LTC Facility?**

- Long-term care involves a variety of services designed to meet a person's health or personal care needs during a short or long period of time. These services help people live as independently and safely as possible when they can no longer perform everyday activities on their own.  
  (National Institutes of Health)
Long-term care services and supports necessary to meet health or personal care needs over an extended period of time. is a range of services and supports you may need to meet your personal care needs. Most long-term care is not medical care, but rather assistance with the basic personal tasks of everyday life, sometimes called Activities of Daily Living (ADLs), such as:
- Bathing
- Dressing
- Using the toilet
- Transferring (to or from bed or chair)
- Caring for incontinence
- Eating

Retrieved from https://longtermcare.acl.gov/the-basics/what-is-long-term-care.html

Skilled Services Rendered in a LTC

- Medicine
- Dietary
- Nursing
- Rehabilitation
- Religious
- Respiratory
- Palliative/Hospice
- Nutrition
- Podiatry
- Recreation
- Mental health
- Psychiatrist, etc....
Rehab Services Rendered in a LTC

How are Seating and Mobility services rendered in a LTC?

- Medicare Part B (Medical Insurance) covers power-operated vehicles (scooters) and manual wheelchairs as durable medical equipment (DME) that your doctor prescribes for use in your home. You must have a face-to-face examination and a written prescription from a doctor or other treating provider before Medicare helps pay for a power wheelchair. Power wheelchairs are covered only when they're medically necessary.

- Who's eligible?
  - All people with Part B are covered
  (Retrieved from Medicare.gov)
  - Who renders services? > OT/PT/OTA/PTA/ATP/ATP-SMS
Common Seating Systems

- Manual, non-rigid
- Manual, rigid
- Reclining
- Tilt in space
- Bariatric/Heavy duty
- Narrow
- Standard transports
- Comfort based
- Motorized (Rear, Front, Mid)
- Scooter (3 or 4 wheeled)

Variations of Manual Seating Systems
Variations of Motorized Seating Systems

Variations of Wheelchair Accessories

continued
Differences between a 3 and 4 wheeled scooter?
Differences between the manual wheelchair variations?
Differences between a tilt and reclining system?

The intake for a seating and mobility system within a LTC can be generated by any provider, essentially requesting a CLINICAL SCREENING for any aspect of seating and mobility.

- Example: A unit RN can initiate a screen for a resident with poor seating posture.
- Example: A Nursing Assistant notices a resident having trouble grasping the hand rim on his current wheelchair and communicates that to a therapist.
- Example: A Respiratory therapist consults a therapist for a client in need of a wheelchair facilitating position change for a client with COPD.

Commonly, the referral is generated by a MD who initiates a consultation or prescription for a wheelchair.
Collaborative Approach

- Working with team members from neighboring disciplines plays a major role in addressing seating and mobility needs of individuals within a LTC facility.
- **Dietary**> Nutrition plays a major role in energy levels, skin integrity and overall psychosocial wellbeing.
- **Recreation**> Activity levels can fluctuate a wheelchair user’s posture in multiple ways. Social engagement also may be affected with postural changes.
- **Medicine**> Medication and the effects of co-morbidities on wheeled mobility
- **Speech**> Effects of posture on self feeding, swallowing and language
- **Nursing**> skilled medical intervention given mobility concerns

Qualified VS Competent?

- An Occupational Therapist is trained under the realm of function with an emphasis on facilitating engagement in meaningful activities, such as ADLs, IADLs and leisure pursuits. A clinician is qualified based on educational background and scope of practice, however competency is acquired with exposure and continuing skill acquisition. Thus, An OT is qualified to perform a skilled intervention in seating and mobility, however a competent OT can do so with a higher level of knowledge and clinical reasoning. Competency can be attained through continuing education and peer interactions within the field.
Dependent VS Independent User?

- The LTC facility can have both dependent wheelchair users or clients who require assistance for mobility with a focus on comfort and social interaction as well as independent users or those who can self propel with varying techniques and comfort is almost secondary.
- Determining what type of user is a major step in the relationship of a LTC facility and addressing seating and mobility needs.
- But remember, nearly every factor within a LTC is ever-changing, so always think ahead!

Objective #1

- With age related changes, many clients can go through both subtle and rapid changes within their functional capacities, some of which may effect wheeled mobility. Some on which include but are not limited to:
  - Orthopedic changes in the spinal column (kyphosis, scoliosis and lordosis)
  - Deterioration in visual capacities
  - Lack of upper body strength
  - Decrease in stamina/endurance
  - Development of pressure ulcers
  - Asymmetries in the pelvis
  - Unilateral weakness
  - Degenerative changes
Postural Abnormalities: Kyphosis

A rounding of the back usually caused by age related changes, a progression of osteoporosis and most commonly seen in more women than men. This presentation plays a major role in wheelchair seating, as often its effects stretch into the position of the head and pelvic during wheelchair mobility; not only affecting vision, but comfort as well.

A common result of a kyphotic posture is the gradual onset of a posterior pelvic tilt and the onset of upper extremity pain from poor kinematic propulsion of the wheelchair using the upper extremities. Other impacts may include:

- Poor respiratory functions
- Obstruction of the visual field
- Impact on social interactions
- Cervical and lower lumbar pain

Postural Abnormalities: Kyphosis & Intervention

- A drop in the rear seat to floor height may assist in reducing the effects of the kyphotic posture on wheelchair seating by increasing hip flexion and allowing for the rise in cervical extension

- Opening the back angle of a wheelchair can assist in accommodating for a kyphotic posture by increasing spinal extension, but also may facilitate a posterior pelvic tilt

- Utilizing a curved backrest with a deeper contoured back height may be used to accommodate for the kyphotic posture.
A pelvic obliquity can be caused by a leg length discrepancy, hip contractures and or structural issues with the spine. Commonly seen during wheelchair seating as one foot on the foot plate is sitting higher than the other and or with an increase in pressure in one of the IT’s potentially resulting in skin breakdown.
Postural Abnormalities: Pelvic Tilt

- Abdominal weakness
- Shearing
- IT pain
- Frequent Falls
- Dozing off
- Lower back pain
- Cervical discomfort
- Lack of upper body ROM

Objective #2

- The impact of poor posture within the long term setting is evident during areas of daily engagement, such as dining, recreational pursuits and areas of ADLs.

- Furthermore, the effects of pain and discomfort from poor posture can also heavily impact engagement all together.
Variations of Posture

Objective #3

- Postural Deficits
  - Incontinence
  - Eating
  - Hygiene
  - Fatigue
  - Pain
  - Social Interactions
  - Sitting tolerance
  - Skin breakdown
Skin breakdown can occur from a number of factors. Within the long term care setting, a mixture of bowel and bladder incontinence, prolonged sitting without pressure relief, moisture, heat and exposed bony prominences can facilitate the degradation of skin within the lower back, heels, elbows and buttocks at an alarming pace.
Questions?

- Can I protect every bony prominence?
- Differences between a gel, foam and air cushion?
- What is the "dump" area of the cushion?
- Can I protect every bony prominence?

Assessment (Factors to Consider)

- Purpose of a wheelchair? (comfort, mobility)
- Present and future morbidities which may effect mobility?
- Risk of pressure development?
- Behavioral tendencies?
- New wheelchair Vs. Recycling?
- Indoor/outdoor use?
Education

- Pressure relief strategies
- Incontinent covers
- Anti-shear covers
- Physical exercise
- Transferring techniques
- Orthotic devices
- Skin inspection
- Routine maintenance/inspection
- Education

Conclusion

- The LTC facility is a dynamic context where multiple factors play a role in the provision of seating and mobility services.
- The long term resident/client will require a seating system which can follow suite with the progressive changes typical of an aging adult.
- Specific factors such as immobility, comfort, orthopedic changes, pressure development and poor posture are some of the many factors related to servicing a client in a LTC.
- Team collaboration, continuing education and peer interactions (vendors, manufacturers, fellow clinicians) can greatly assist in making the right decision for your client!
Thank you for your attendance!