SLP Who?

Exploring the Role of a Medical Speech Language Pathologist in Brain Injury Rehabilitation.

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agenda

Introduction

What is an SLP?

Populations served

Continuum of care

About me:

Based in Kannapolis, NC

Born and raised in Rochester, NY

Speech language pathologist for 6 years

Carolinas Rehabilitation Northeast (Atrium Health), acute inpatient rehabilitation hospital

Facilitator of conversation group with Triangle Aphasia Project and founder of CR Aphasia Support Group through Atrium Health

Special interests in treating patients with brain injuries who have dysphagia and aphasia

Dog mom to Bella

Amateur potter, hiker, and kayaker

Who is an SLP?

- Speech language pathologist
- Undergraduate degree + Master's degree + fellowship year
- Work in schools, home health, outpatient clinics, specialty clinics, acute care hospitals, rehab hospitals, skilled nursing facilities, etc.
- Medical SLPs see patients with various diagnoses, including but not limited to:
  - Stroke
  - Brain injury
  - Cardiac
  - Pulmonary
  - Neurodegenerative (ALS, Parkinson's disease, MS, etc)
  - Head and neck cancer

What does a medical SLP do?

SWALLOWING

COGNITION

COMMUNICATIO N

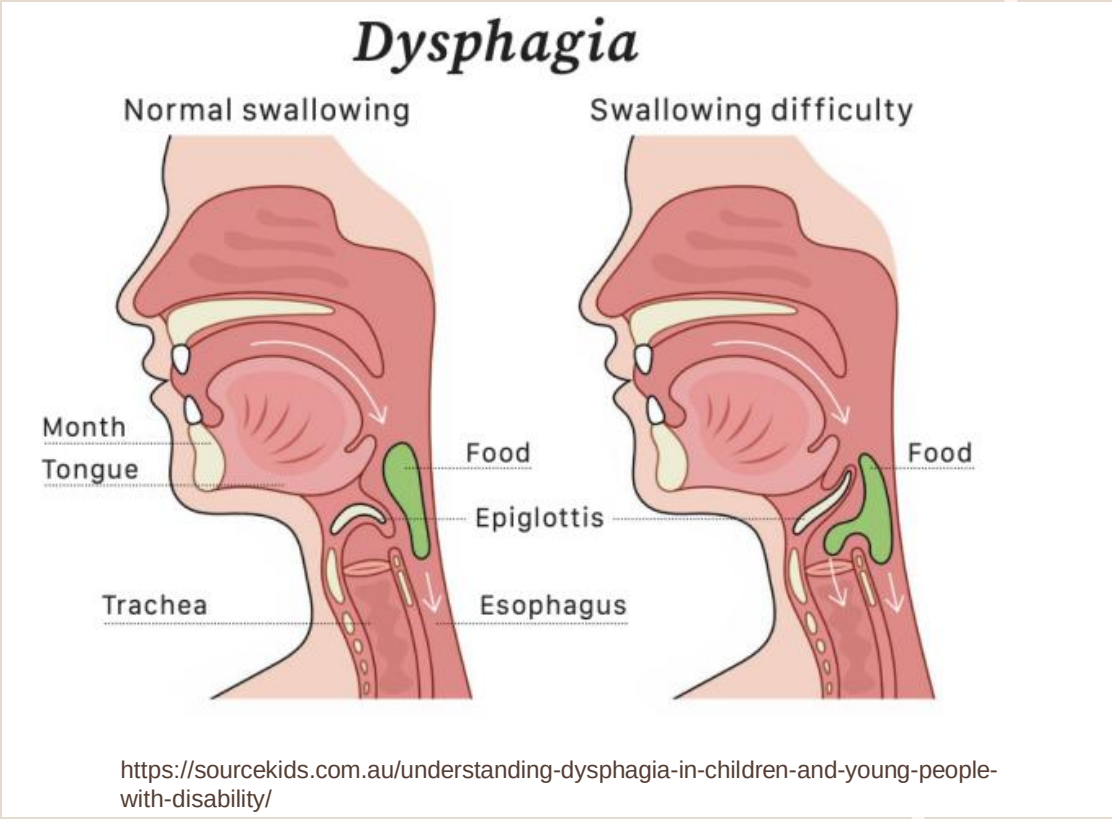
Swallowing

Dysphagia = difficulty swallowing

Many causes

Increases risk of:

- Choking
- Aspiration
- Pneumonia
- Respiratory failure
- Malnutrition, dehydration, weight loss

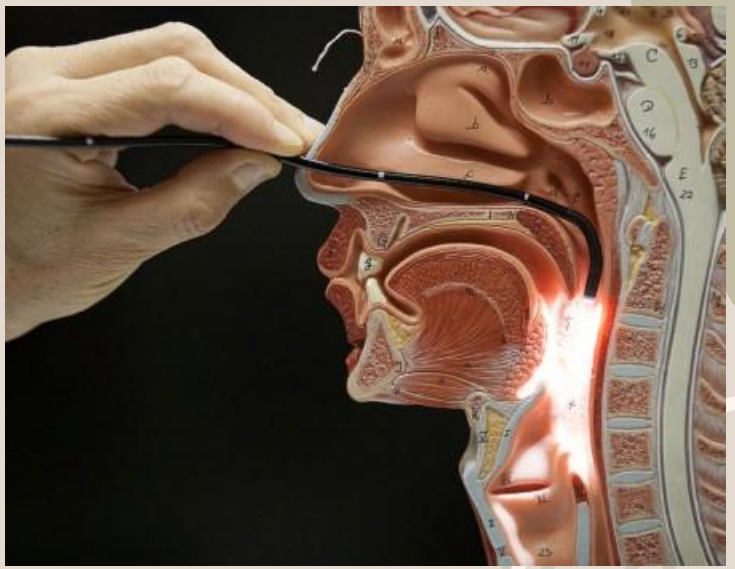


https://sourcekids.com.au/understanding-dysphagia-in-children-and-young-people-with-disability/

Evaluating the Swallow

1. Bedside swallow evaluation
2. Instrumental swallow study
   a) Fiberoptic Endoscopic Evaluation of the Swallow (FEES)
   b) Modified Barium Swallow Study (MBSS)

https://dysphagiacafe.com/stand-up-for-standardization-collaborative-clarification-for-clinicians-performing-modified-barium-swallowing-studies-mbss/



https://langfun.com/choosing-between-fees-and-mbss-a-guide-for-providers/

Treating Dysphagia

- Exercises
- Teaching and practicing compensatory strategies
- Respiratory muscle strength training (RMST)
- Neuromuscular electrical stimulation (NMES) and surface electromyography (sEMG)
- Diet modification and liquid thickening

Cognition

- Brain injuries can impair cognitive processes
  - Attention
  - Memory
  - Organization
  - Executive functions
- Can impact independence and safety
- Some studies suggest up to 50% of TBI survivors report long-term problems with cognition

Communication

- Brain injuries can cause difficulty with communication
- Can decrease independence, impact safety, and cause social isolation

Receptive – information IN

- Auditory comprehension
- Reading comprehension

Expressive – information OUT

- Verbal expression
- Writing
- Nonverbal communication

Acquired Communication Disorders

Aphasia

Language disorder

Can affect one or all the language modalities:

- Speaking
- Understanding
- Reading
- Writing

Apraxia

Motor planning disorder

Message between brain and mouth gets “jumbled”

Know what you want to say, but can’t get your mouth to say it

Inconsistent

Dysarthria

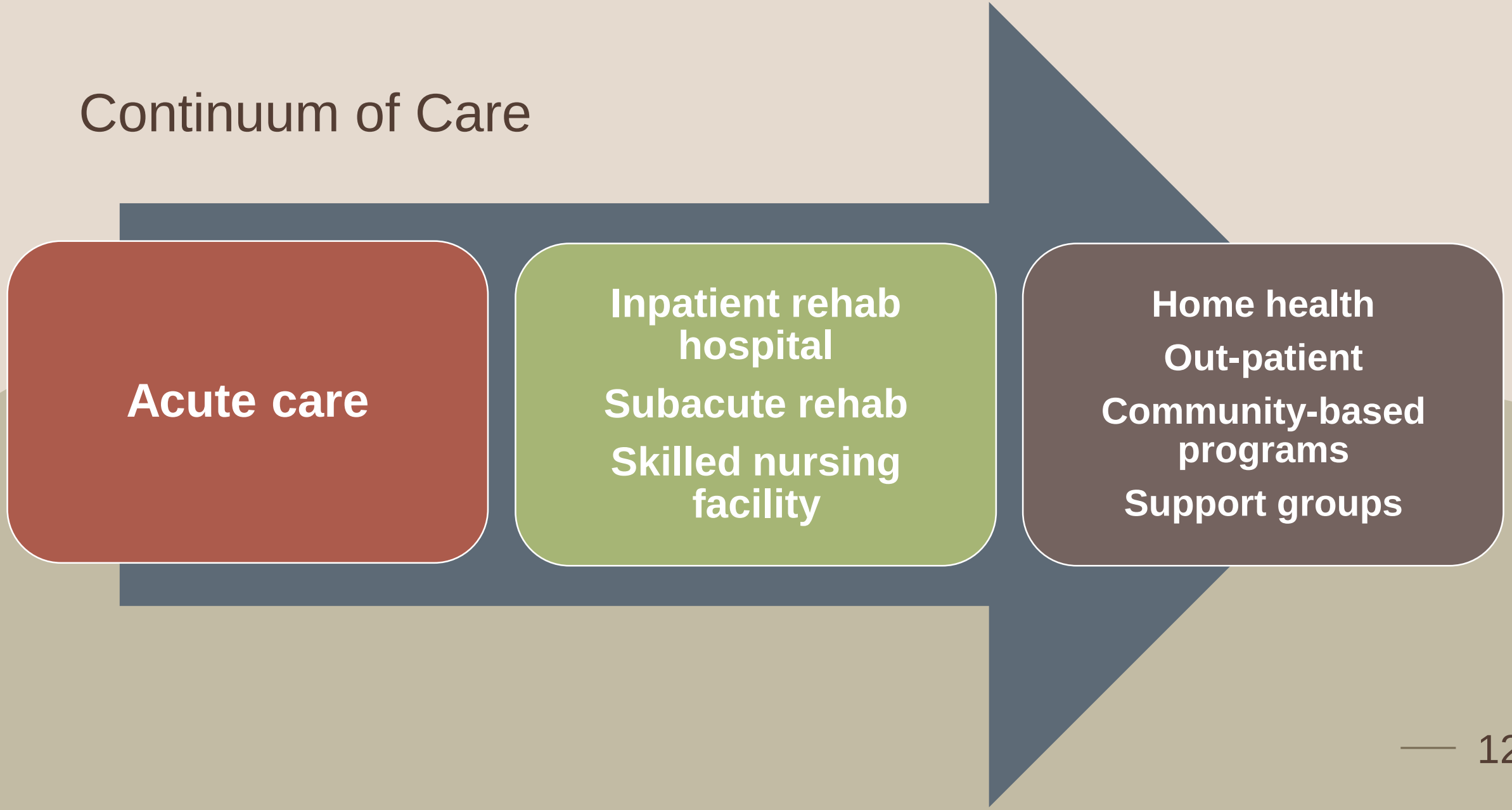
Caused by decreased control of speech muscles

Changes in:

- Articulation
- Phonation
- Resonance
- Respiration

Commonly presents as slurred speech

Continuum of Care



Questions?

References

- Dhakal A, Bobrin BD. Cognitive Deficits. [Updated 2023 Feb 14]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2025 Jan-. Available from: https://www.ncbi.nlm.nih.gov/books/NBK559052/
- Gosney, Margot. “Stroke Patients and Aspiration Pneumonia.” *ASHA Wire*, ASHA, Mar. 2005, pubs.asha.org/doi/abs/10.1044/sasd14.1.16.
- Maharjan R, Diaz Bustamante L, Ghattas KN, Ilyas S, Al-Refai R, Khan S. Role of Lifestyle in Neuroplasticity and Neurogenesis in an Aging Brain. Cureus. 2020 Sep 24;12(9):e10639. doi: 10.7759/cureus.10639. PMID: 33133809; PMCID: PMC7586385.
- Rabinowitz AR, Levin HS. Cognitive sequelae of traumatic brain injury. Psychiatr Clin North Am. 2014 Mar;37(1):1-11. doi: 10.1016/j.psc.2013.11.004. Epub 2014 Jan 14. PMID: 24529420; PMCID: PMC3927143.
- Tsai YC, Liu CJ, Huang HC, Lin JH, Chen PY, Su YK, Chen CT, Chiu HY. A Meta-analysis of Dynamic Prevalence of Cognitive Deficits in the Acute, Subacute, and Chronic Phases After Traumatic Brain Injury. J Neurosci Nurs. 2021 Apr 1;53(2):63-68. doi: 10.1097/JNN.0000000000000570. PMID: 33538456.