Adult Speech-Language Pathology Services in Health Care Settings

Inservice Presentation

Agenda

- Role of the Speech-Language Pathologist (SLP)
- Populations Whom SLPs Serve
- Health Care Settings
- Swallowing and Swallowing Disorders
- Cognition, Speech, Language, and Voice
- Aerodigestive Disorders
- When To Consult an SLP

Role of the Speech-Language Pathologist (SLP)

- The SLP's role is to
  - maximize communication, thinking, and safe swallowing function;
  - perform screening and comprehensive evaluations; and
  - provide individualized treatment that aligns with the patient's or client's goals.

Populations Whom SLPs Serve

- SLPs serve individuals who have difficulty with communication, thinking, or swallowing.

- SLPs are commonly consulted in patients with
  - neurological conditions (e.g., stroke, traumatic brain injury, multiple sclerosis, Parkinson's disease);
  - medical/surgical events (e.g., surgery to head/neck, endotracheal intubation);
  - chronic conditions (e.g., chronic obstructive pulmonary disease); and
  - developmental or congenital conditions (e.g., cerebral palsy).

Health Care Settings

SLPs help patients throughout the continuum of care in a variety of settings:

- hospital (acute care)
- acute rehabilitation
- outpatient rehabilitation
- skilled nursing facility (SNF)
- long-term care (LTC)
- long-term acute-care hospital (LTACH)
- assisted living facility
- continuing care retirement community
- home health

Swallowing and Swallowing Disorders

- SLPs screen, evaluate, diagnose, and treat swallowing disorders to support safe, effective, and dignified eating and drinking across the lifespan.
- The following information describes normal swallowing and swallowing disorders (*dysphagia*).

Normal Swallowing

- Swallowing is a complex, coordinated process that moves food, liquid, and saliva from the mouth to the stomach. It involves 3 phases:
  - **Oral phase:** Containing food/liquid/saliva in the mouth, chewing, and moving food/liquid to the back of the mouth
  - **Pharyngeal phase:** Moving food/liquid/saliva through the throat, protecting the airway, and clearing residue from the throat
  - **Esophageal phase:** Moving food/liquid/saliva through the food pipe, down to the stomach

Normal Swallowing (cont'd)

[NOTE TO PRESENTER: Consider inserting a video demonstrating normal swallowing on VFSS/MBSS here. Examples:

- *Normal Swallow*
- *Swallow Study - Solid Texture/Cracker - Modified Barium Swallow Study (MBSS) Lateral View HD]*

Swallowing Disorders (Dysphagia)

- *Dysphagia* is a swallowing disorder involving the oral cavity, pharynx, esophagus, or gastroesophageal junction.
- Dysphagia can have the following consequences:
  - malnutrition
  - dehydration
  - aspiration pneumonia
  - compromised general health
  - chronic lung disease
  - choking
  - death
- Adults with dysphagia may also experience disinterest, reduced enjoyment, embarrassment, and/or isolation related to eating or drinking.

Swallowing Disorders (Dysphagia), cont'd

- SLPs primarily manage oral and pharyngeal dysphagia.
  - See this resource for information on SLPs as the preferred providers for dysphagia services: https://www.asha.org/slp/clinical/speech-language-pathologists-as-the-preferred-providers-for-dysphagia-services/
- SLPs also recognize causes and signs/symptoms of esophageal dysphagia and make appropriate referrals for its diagnosis and management.

How Does an SLP Assess Swallowing?

- The SLP assesses swallowing by conducting a *comprehensive swallowing assessment*.
- This assessment may include
  - non-instrumental swallowing assessment—the *clinical swallowing evaluation/examination* (CSE) and
  - imaging procedures such as VFSS/MBSS and FEES. These procedures are also known as *instrumental swallowing assessments*.
- Without instrumental assessments, it is insufficient to infer specific information related to laryngeal, pharyngeal, or upper esophageal anatomy and physiology required to develop effective treatment options" (Garand et al., 2020).

Clinical Swallowing Evaluation/Examination (CSE)

- The purpose of a *non-instrumental swallowing assessment,* also known as a clinical swallow evaluation/examination, is to determine the presence (or absence) of signs and symptoms of dysphagia, with consideration for factors such as fatigue during a meal, posture, positioning, and environmental conditions.
- Verification of aspiration and thorough assessment of impairments in swallowing physiology or laryngeal/pharyngeal/upper esophageal anatomy require instrumental assessment.

Clinical Swallow Evaluation (CSE) (cont'd)

- The CSE includes the following key components:
  - medical chart review
  - assessment of
    - cognitive functioning
    - secretion management skills
    - posture/positioning for feeding
    - oral care status
    - cranial nerve functioning
  - oral mechanism inspection
  - administration of food and drink trials to assess
    - oral bolus management
    - behavioral signs of pharyngeal dysphagia
    - impact of fatigue or respiratory function on swallowing
    - changes to vital signs of physiological status because of food/liquid trials.

Instrumental Swallowing Assessments: VFSS/MBSS

- Used to evaluate oropharyngeal swallowing anatomy and physiology and screen esophageal structure/function
- Often completed with an SLP and radiologist or radiology technician (depending on state licensure guidelines, payer and facility policies)
- The VFSS/MBSS may be used to:
  - identify relevant anatomical structures;
  - evaluate the oral and pharyngeal phases of swallowing;
  - identify the effectiveness of swallowing function and sensory awareness;
  - assess the effectiveness of altering bolus delivery or bolus consistency;
  - consider alternative methods of presentation (e.g., modified cups, spoons, alternative nipple to modify flow rate);
  - assess the effectiveness of compensatory techniques on swallowing function; and/or
  - assess the presence and effectiveness of the patient's response to laryngeal penetration, residue, and/or aspiration.

Instrumental Swallowing Assessments: FEES

- Evaluates oropharyngeal swallowing function
- Completed with a speech-language pathologist*
- The FEES may be used to:
  - evaluate functioning and structure of oropharynx and screen laryngeal function, referring to a medical provider if structural abnormalities are noted;
  - identify effective swallowing strategies;
  - identify areas to target in therapy;
  - evaluate the safety of diet textures; and
  - provide biofeedback during therapy.

**State licensure guidelines may require additional personnel present during the FEES exam*

Instrumental Swallowing Assessments: FEES (cont'd)

[NOTE TO PRESENTER: Consider inserting a video here showing a FEES study. Example:

- *FEES Swallowing Study: Fiberoptic Endoscopic Evaluation of a Swallowing]*

Swallowing Therapy

- Therapy for individuals with dysphagia may include the following:
  - **Rehabilitative techniques**—exercises focused on improving strength of muscles that aid in swallowing and airway protection. For example:
    - Swallowing strengthening exercises (e.g., effortful swallow maneuver, Masako maneuver)
    - Expiratory muscle strength training
  - **Compensatory approaches**—techniques that can alter the swallow when used but do not create lasting functional change. For example:
    - Changing delivery mode or volume (e.g., taking liquids by spoon, using a cup that controls the sip size, taking small bites)
    - Modifying food or liquid textures
    - Swallowing maneuvers (e.g., chin tuck, head turn, effortful swallow)
  - **Patient/care partner education**—providing the patient and care partner with resources focused on improving the safety and efficiency of swallowing, while preventing risk for swallowing-related illness.

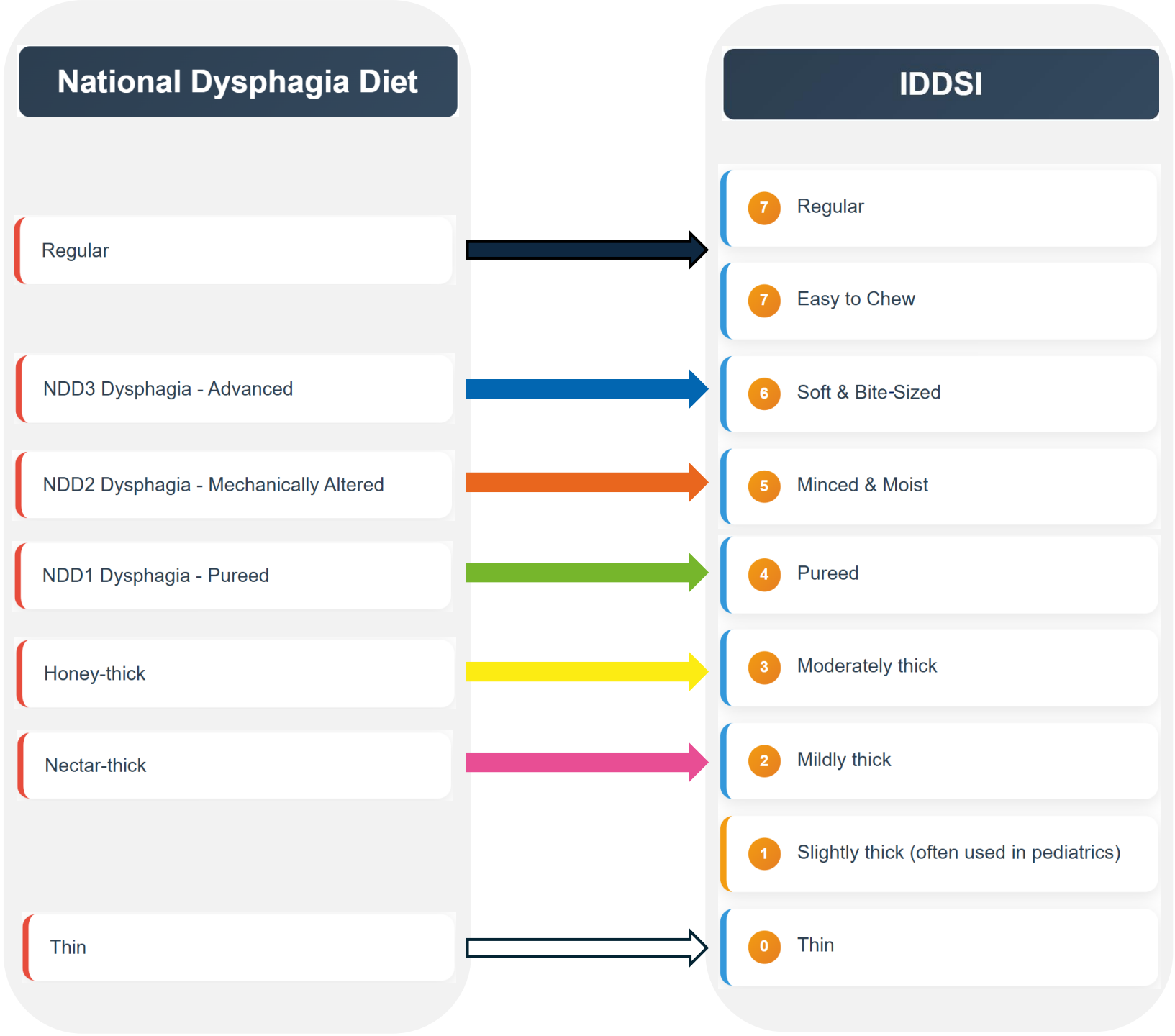
Oral Care: Why Is it important?

- Oral bacteria can enter the lungs and cause infection (Berg et al., 2023).
- Performing oral care significantly reduces the risk of aspiration pneumonia (Kaneoka et al., 2015).
- Oral care recommendations
  - Perform oral care twice a day with an antibacterial toothpaste in combination with *interdental cleaning (flossing)* and the *free water protocol* (Remijn et al., 2022).
    - The free water protocol offers patients with dysphagia regular water between meals under specific guidelines, even if they are otherwise on thickened liquids. The protocol is based on evidence that water poses a lower risk of aspiration-related complications than other liquids, provided patients have good oral hygiene and are cognitively able to follow safety strategies.
  - Brush teeth with a toothbrush, rather than with swabs, to effectively remove biofilm and stimulate saliva production (Sheffler, 2018).
  - People who have difficulty managing their secretions can use *oral suctioning* or *suction toothbrushes*.

Dysphagia Diet Textures

Dysphagia diet texture terminology can vary by individual facility—although there are widespread efforts to shift from national standards (e.g., National Dysphagia Diet) to international standards (e.g., International Dysphagia Diet Standardisation Initiative or *IDDSI*).

Note: Level 1 (slightly thick liquids) is primarily used in pediatric cases and does not have a corresponding liquid texture in the National Dysphagia Diet.



The IDDSI Framework

- The *International Dysphagia Diet Standardisation Initiative (IDDSI) framework* (https://www.iddsi.org/) is a global effort designed to avoid the confusion created by variable terminology and definitions to describe modified diets in locations around the world.
- The goal is to improve safety and to ensure equitable care for diet modification for all individuals with dysphagia worldwide.

Thickened Liquids

- Without instrumental swallowing assessments (e.g., VFSS/MBSS, FEES), we're unable to determine if
  - thickened liquids behave differently from thin liquids;
  - aspiration occurs with any texture; or
  - which strategies are most helpful for improving swallow efficiency and safety.

Thickened Liquids (cont'd)

- Although using thickened liquids can help swallowing for *some* patients, it can also lead to problems—such as reduced fluid intake or other health issues if the patient aspirates the thickened liquids.
- SLPs may recommend thickened liquids on an *individualized basis*.
  - SLPs use all available information about the patient's health—as well as current evidence on diet texture modifications and the patient's preferences—to make informed recommendations and to obtain informed consent from the patient or decision maker.

Cognition, Speech, Language, and Voice

- In addition to treating swallowing disorders, SLPs also work with individuals who have difficulties with cognition, speech, language, and voice.

Cognition

- SLPs play a role in the screening, assessment, diagnosis, and treatment of people with cognitive difficulties.
- Changes in thinking skills—including memory, attention, problem solving, and executive functioning—can result from a variety of conditions, including the following:
  - stroke
  - dementia
  - delirium
  - traumatic brain injury (TBI)
  - concussion—also known as mild traumatic brain injury (mTBI)
  - long COVID
  - cancer-related cognitive changes
- Cognitive treatment may be *restorative* (aiming to restore function and brain pathways), *compensatory* (e.g., environmental modifications, visual aids), and may involve patient and care partner education.

Speech

- Speech disorders can be developmental or acquired and can include the following:
  - dysarthria
  - apraxia of speech

- Speech disorders may co-occur with other conditions—like aphasia or cognitive deficits.

- SLPs can help improve a person's speech production and intelligibility through a variety of methods, including:
  - **strategies** — modifying loudness, rate of speech
  - **prompts or cues** — to improve accuracy or efficiency
  - **care partner training** — to maximize communication effectiveness
  - **augmentative and alternative communication (AAC)** — using gestures, communication boards, or electronic speech output devices, if indicated

Language

- Neurological disorders as well as developmental, psychiatric, and medical conditions can cause changes to
  - language production (*expressive language*) and
  - understanding of language (*receptive language*).

- Here are some examples of conditions that can cause language changes:
  - stroke
  - traumatic brain injury
  - dementia
  - multiple sclerosis
  - intellectual disability

Language (cont’d)

- SLPs help rehabilitate difficulties with language in the following ways:
  - provide training on communication strategies
  - help find the most effective method of communication (e.g., verbal, written, AAC)
  - train care partners to incorporate skills learned in therapy to everyday life

Voice

- A *voice disorder* a set of changes to voice quality, pitch, or loudness that
  - does not align with the person's age, gender, geographic location, or cultural background or
  - impacts an individual's ability to meet their daily needs.
- Examples of voice disorders include the following:
  - vocal fatigue
  - structural changes to the vocal folds or voice box (*larynx*)
  - spasmodic dysphonia
  - muscle tension dysphonia

Aerodigestive Disorders

- Aerodigestive disorders can cause secondary problems in feeding, swallowing, voice, and/or laryngeal airway function.
- SLPs play a role in the screening, assessment, diagnosis, and treatment of these secondary problems.
- SLPs often work collaboratively with other professionals (e.g., ear, nose, and throat [ENT] specialists) in serving individuals with aerodigestive disorders.
- Examples of aerodigestive disorders inculde:
  - muscle tension dysphonia
  - muscle tension dysphagia
  - paradoxical vocal fold movement (PVFM)
  - chronic cough

When To Consult an SLP

- Consult an SLP when a patient has an observed or reported difficulty with communication, cognition, or swallowing.

- Use a referral guideline or a screening tool to identify instances when a comprehensive speech-language pathology evaluation may be indicated.

- See this ASHA resource for more information:
  - SLP Health Care Referral Guidelines

Additional Resources

Speech-Language Pathologists in Health Care Settings — ASHA's webpage with resources for SLPs who work in health care settings.

ASHA Practice Portal — contains comprehensive information about evaluation and treatment considerations on topics including adult dysphagia, aphasia, acquired apraxia of speech, cultural responsiveness, dementia, dysarthria, head and neck cancer, telepractice, TBI, and voice disorders.

ASHA Evidence Maps — a searchable online tool designed to assist clinicians with making evidence-based decisions.

Flexible Endoscopic Evaluation of Swallowing — ASHA's webpage that describes the instrumental assessment FEES.

Videofluoroscopic Swallow Study (VFSS) — ASHA's webpage that describes the instrumental assessment VFSS/MBSS.

International Dysphagia Diet Standardisation Initiative —This webpage details the history behind—and ASHA's support of—IDDSI.

Questions? Email healthservices@asha.org and let us know how we can support you.

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