Comprehensive Clinical Evaluation of Feeding, Eating, and Swallowing
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Clinical Evaluation Basics

Areas of Focus:

- Reason(s) precipitating a feeding, eating, and swallowing evaluation request
- Medical history
- Feeding, Eating, and Swallowing history
- Cognitive functioning
- Communication method
- Vision and Perceptual functioning
Clinical Evaluation Basics

- Nutritional history and current intake
- Respiratory status
- Positioning
- Activity tolerance
- Sensory Processing
- Vision
- Environmental and contextual factors
- Method of feeding and amount of assistance
- Amount of current caregiver burden that may be impacting client performance
Information Gathering

• Medical record review and patient/caregiver interview are important components of the bedside clinical evaluation

• Goals of this process are to:
  • Focus on problems from both an objective (medical) and subjective (interview) perspective
  • Gather information that contributes to both the problem and the potential solution
  • Provide a framework in which to conduct the hands-on assessments
Information Gathering

Medical Record Review:

• Medical history including prior dysphagia intervention
• History and Physical
• Labs
• Current treatments, medications, interventions
• Progress notes from other disciplines
• Weight and any significant weight loss
• Current diet level and method of intake
Information Gathering

Patient/Caregiver Interview:

- Patient’s chief complaint
- Caregiver observations/perceptions of issues
- Timeline of complaints and changes in feeding, eating, and swallowing performance
- Understanding of social, religious, and cultural influences on feeding, eating, and swallowing
- Goals of evaluation and intervention
Information Gathering

3 day food diary

- Parent records/charts everything child eats and drinks for 3 days
- Parent records a variety of data
  - Time food was served
  - Where meal took place
  - Food items & amount served
  - Food/drink & amount consumed
  - Time it took to consume meal
  - Any adverse effects
Unique Components of the Clinical Bedside Swallowing Examination
Clinical Evaluation - Oral Anatomy

Using general observation, note:

• Presence or absence of dentition
• Integrity of oral structures
  • Lips
  • Cheeks
  • Tongue
  • Palate
  • Jaw
  • Alveolar ridge
• Ability to manage oral secretions
• Oral hygiene
Clinical Evaluation - Oral Examination

Hands-on examination need to determine:

- Lip range of motion strength, coordination, tone
- Tongue range of motion, strength, coordination, tone
- Velar function
- Oral sensation
- Presence or absence of reflexes
  - Gag
  - Palatal
  - Swallow
Clinical Evaluation - Laryngeal Examination

• Listen for:
  • Vocal quality
  • Pitch range
  • Loudness range

• Airway protection:
  • Strength of cough
  • Strength of throat clearing
Clinical Evaluation - Trial Swallows

If initial findings are not strongly suggestive of the need for an instrumental exam, consider the following:

- If patient is eating orally, observe him at a mealtime (more than one is optimal)
  - Reaction to food
  - Ability to manipulate food/chew
  - Frequency of coughing/throat clearing
  - Positioning
  - Hand to mouth abilities
  - Struggling behaviors during meal
Clinical Evaluation - Trial Swallows

Meal observation:

• Changes in secretion levels during meal
• Total intake
• Duration of meal
• Coordination of breathing and swallowing
• Ability to maintain necessary upright posture during meal
• Level of fatigue during and immediately after meal
• Ability to utilize proper utensils
Diagnostic Intervention

During the bedside evaluation, a portion of the activity is diagnostic intervention

- Trial of compensatory strategies, as appropriate
- Assessment of signs and symptoms of swallowing intolerance during trial swallows with and without food/liquid
- Determination of overall clinical impressions
- Identification of initial recommendations
  - Alterations to diet consistencies/delivery method/delivery rate
  - Positioning changes
  - Adaptive equipment
  - Environmental accommodations
  - Other tests/assessments
Referrals....Who else to refer to?

- GI
- ENT
- Neurologist
- Psych
- Dietician
- Physical therapist
- Speech therapist
Treatment Considerations
As with all other therapy activities, oral motor treatment activities should be fun, pleasurable, and graded for success. Activities and expectations are more likely to occur in the home if family and child friendly.
Treatment Considerations

- Oral Structural Considerations
- Respiratory
- Postural Considerations
- Sensory Considerations
- Praxis Considerations
- Fine Motor Considerations
- Environmental Considerations
- Behavioral Considerations
Respiration & Positioning Considerations

Potential Problems:
- Limited respiratory support for drinking
- Limited rib cage mobility due to posture and tone impacting respiratory capacity

Potential Interventions:
- Consider ventilation assist interventions; proceed cautiously
- Prep with handling technique which encourages rib cage mobility
Respiration & Positioning Considerations

Potential Problems:
- In-coordination of respirations
- Postural compensations to support respiratory system which limit oral and pharyngeal musculature for safe swallowing

Potential Interventions:
- Impose pacing strategies and/or equipment (ex: Haberman nipple)
- Outside meals, activities which promote postural control with respiratory focus (blowing, etc.)
Optimizing Postural Stability

Potential Problems:
Decreased scapular girdle, pelvic girdle, and trunk co-activation limiting stability at head/neck impacting oral skills and distally impacting self feeding skills

Potential Interventions:
• Heavy work
• Balance activities
• Transitional activities
• Therapy Ball activities
• Activities for distal skills
• Activities for proximal skills
• Aquatic therapy
• Equipment and positioning
Activities for Postural Stability

• Impacts distal skills which support self feeding
• Impacts proximal skills as they provide a base of support for oral motor control
Suggested Activities for Postural Stability

Aquatic therapy
  • strengthens with resistance
  • grade using turbulence of water and/or resistive equipment
Sensory Considerations

Potential Problems:
- Tactile processing and body scheme
- Visual processing

Potential Interventions:
- Distal to proximal tactile play, including facial molding
- Food choices
- Change presentation of food presentation
- Eliminate visual distractions
- Oculomotor- visual pursuit games
Sensory Considerations

**Potential Problems:**
- Vestibular processing: relationship on tolerance to position during feeding and arousal in feeding
- Auditory processing
- Family’s understanding of sensory processing

**Potential Interventions:**
- Change input to increase arousal for meal
- Adjusting extraneous environmental sounds
- Interactive listening games
- Verbal sequence simple, verbal imitation games
- Education
- “True to life” analogies
Winning Combination: Sensory with Oral Motor Activities

- Vestibular equipment
  - hanging from a trapeze
  - prone in net swing
  - sitting on flexor swing

- Resistive activities
  - play-doh
  - theraputty
  - cutting/pre-scissor activities w/ resistance
  - add in tactile components
Motor Planning Skills for Feeding

Potential Problems:

• Poor understanding of the “gestalt” impacts ability to understand the mealtime process

• Limited motor planning skills leads to dysfunctional oral skills

• Poor body awareness, visual processing skills, auditory processing skills, motor skills

Potential Interventions:

• Stories, puppet play, engage in meal prep

• Use activities which facilitate body awareness and midline orientation as it supports feeding

• Compensatory: sequential execution pairing “checklist” with meals

• Gross and oral motor sensory prep before meals

• Rotating food textures in presentation
Optimize Fine Motor Skills

• Consider fine motor skills as they relate to ability to meal prep, manipulate utensils, finger feed, stabilize cup

• Trial adaptive equipment (discuss utensils, cups, bowls/plates, straws, etc.)

• Activities which promote fine motor skill development to support utensil use
Environmental Considerations

• Adjust variables as appropriate to the child’s sensory processing system

• Over-aroused:
  • cut down distractions
  • participate in heavy work prior to going to “busy” environment
Environmental Considerations

Under-aroused:

• increase environmental cues to transition into meals
• ensure positioning, etc., are appropriate for optimizing and maintaining arousal level
• Establish appropriate rules and boundaries with caregivers
• Ensure that all parties have appropriate “control”
• Offer child choices when appropriate
• Ensure appropriate means of communication around mealtime activities
Fitting Feeding into Daily Life

• Expose your child to a minimum of one new food per week
• Multiple exposures may be needed (>300); don’t be discouraged if your child refuses the first (or second, or third…) time
• Offer at least one preferred food item with her meal
• 2-3 choices are good, greater may be overwhelming for the child
Daily life….continued

• Make eating a pleasurable experience; enjoy eating with your child; Model that you also enjoy eating. Children tend to eat much better when they are not the only ones eating.

• Sitting at a table (or in a high chair) is a priority.

• Make sure the meal has a **START** and **FINISH**.

• Keep mealtime to 15-30 minutes; shorter, more frequent meals are better than long, drawn out mealtimes.
Daily life….continued

- Encourage but do not force your child to try new foods; accepting a food in his presence (on their plate) is a good, acceptable start.
- A balanced diet is important, fruits, vegetables, and a form of protein at every meal.
- Do your best not to let your child “drink” her meal.
5 Steps to Eating  (Toomey, 2002)

• Tolerate the physical presence/site
• Interact with the food
• Accept the smell
• Touch the food to his/her skin
• Taste the food

You want a “just noticeable” difference
Management of “food jags”

Change one thing at a time…

• Change the shape
  • Different than usually presented
• Change the color
  • Add food coloring
• Change the taste
  • Add a seasoning/spice, cheese, syrup
• Change the texture
  • Add thickening agent, cook differently
Fun With Food

• Create a positive experience around mealtime
• Choose your words wisely
  • Statements such as “You can” versus “Can you?”
  • Ask only choice questions
    • “Do you want the apple or the banana”
• Teach the sensory properties and mechanics of food
  • How does it feel, smell (color, shape, size, texture)?
  • How is it similar to a food that he/she likes?
Fun With Food

• Use “do’s versus don’ts”
  • Instead of saying, “Sit down!”
    • Try saying, “Chairs are for sitting, not standing. We sit on our bottoms in the chair.”
  • Instead of saying, “Stop Screaming!”
    • Try saying, “We need to use an inside voice. If you are mad/sad, you can use your words in an inside voice.”
Fun With Food

• Give a choice/option
• Do not go into the child’s mouth without their permission
• Take turns (role play)
• Talk about the properties
  • “can you make it crunch?”
  • “I hear you crunching”
• Write a mealtime story (during or after)
So Much To Consider

• Wrapping it up?

• Missing links?

• What next?
Any Questions?
References

- Surfus, J (2008), 2-day course, “Fun With Food”, Vienna, Austria