



Mikey Will Eat IT!

**An activity analysis
approach to feeding
therapy.**

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Presentation Objectives

- identify the steps in the activity analysis process.
- apply the activity analysis process to children with deficits in feeding.
- solve case-studies related to common feeding problems.

The Significance of Feeding:



Francesca Clarke

- Up to 1/2 of all children will experience feeding difficulties (Lamb & Pillar, 2020)
- Significant safety considerations
- It is frequently recurring.
- It is tied to social participation and other occupations



Why use an Activity Analysis Approach?

OTPs develop the clinical reasoning skills to consider the **interplay** of **physical, cognitive, emotional, environmental and sociocultural** factors in providing **effective services** for feeding, eating and swallowing dysfunction (Boop, Smith, & Kannenberg, 2017)

Best Sources of Information for the Activity Analysis

- Observations
- Family Interview
- Speech therapy, GI and radiology records.



The Activity Analysis Process

Step 1 Determine what is being analyzed

- ❖ Feeding
- ❖ Eating
- ❖ Swallowing

Step 2 Determine the relevance and importance to the client/family

- Physical and social environments
- Culture

(AOTA, 2014; Thomas, 2015)

The Activity Analysis Process

- Step 3 Determine the sequence and timing
 - Key steps
 - And the order of the steps
- Step 4 Determine object, space and social demands
 - Tools, Supplies, Equipment
 - Social Rules and Expectations

(AOTA, 2014; Thomas, 2015)

Activity Analysis Process

- Step 5 Determine the required body functions
 - Mental, Sensory, Neuromusculoskeletal, Movement, Cardiovascular, Respiratory, Digestion, and Metabolic
- Step 6 Determine the required body structures

(AOTA 2014 ;Thomas, 2015)

Activity Analysis Process

- Step 7 Determine required actions and performance skills
 - Motor Skills
 - Process Skills: Attends, Heeds, Chooses, Initiates, Terminates, Adjusts, Accommodates
 - Social Interaction Skills: Regulates, Expresses Emotions, Transitions

(AOTA, 2014 ; Thomas, 2015)

Making the Match

- Decide which deficits from the Activity Analysis must be addressed first
 - Safety is always top priority
 - An underlying skill that might prevent success
 - Increase by-in through “quick fixes”

Then match to the Intervention strategy available. Combined strategies are effective.
(Howe & Wan 2013)

Common EBP

Interventions

- Sensory
- Oral Motor
- Reinforcement Based Behavioral Interventions

Perceived Measures of Success

- Food Intake
- Tolerance
- Emotional State Regulation

(Lamb & Piller, 2020)

3 Distinct Interventions

Behavioral Interventions

**Parent-Directed and
Educational Interventions**

Physiological Interventions

(Howe & Wang, 2013)

Physiological Interventions

- Preparatory Behaviors: physiological stability, more commonly used with preterm infants.
- Acquisition of feeding skills: Oral motor skills, manipulation of feeding methods
- Environmental supports: positioning techniques and equipment

(Howe & Wang, 2013)

Impact of Sensory Impairments/Physiological

- **Autism Spectrum/ Sensory Processing Disorder**
- Often very picky to taste, temperature, and/or texture.
- Can be easily over-stimulated.



Sensory Environment

- Includes: lighting, sounds, smells, temperature, proximity to other people, touch.
- Adjust the environment to make it more pleasant for the person eating.



Environmental Adaptations

- Think about positioning at the table and in the room.
- Back to the wall to decrease unexpected touch.
- Away from the kitchen to decrease smell.
- Back to the windows for light sensitivity or sunglasses or a hat.
- Eye buds to decrease noise.

Specific Strategies Sensory: Grading Food Textures

Liquids (easiest to most difficult to swallow)

- Honey Thick (milk shake)
- Nectar Thick (yogurt drinks, cream)
- Thick Liquids (milk)
- Thin/Clear Liquids (water, juice, soda)

Specific Strategies Sensory: Grading Food Textures

Solids (easiest to hardest)

- Smooth purees (pudding)
- Gritty purees (applesauce)
- Lumpy purees (oatmeal)
- Meltable Solids (Ritz crackers, Yogurt Melts)
- Diced solids (diced fruit and vegetables)
- Ground solids (ground beef)
- Chewy solids (meat, cheese)
- Mixed textures (soups, sandwiches, casseroles)

Oral Motor Strategies

- Beckman Oral Motor Exercises
<https://www.beckmanoralmotor.com/downloads.php>
- Talk Tools (Z-Vibe)
<https://talktools.com/>
- External Cheek and Jaw Support: Poor evidence per Howe & Wang, 2013



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Consideration Presenting Food

- Present the hardest food first to prevent fatigue.
- **Or** alternate more difficult foods with easier ones such as diced foods with a puree to help clear the mouth between bites.
- **Do Not** offer thin liquids to clear the mouth as this makes a mixed textured food (use purees or thick liquids).

Presenting Food Textures

- **Monitor bite size**
- **Too little** makes it more difficult to know where food is in the mouth and it may go down unexpectedly.
- **Too much:** it will be hard to move the food around and it encourages swallowing without chewing.
- Between the size of a large bean and a cube of cheese.
- Watch out for foods that change textures.
- Safest place to present a bite: on the gums about 2/3 of the way back near the molars.
- Consider the feeding “tool”

Muscle Tone: Hypertonia

- Can impact one part of the body or all parts including the oral muscles.
- Positioning
- Oral Motor Development



Hypertonia

- Needs to be supported in a chair with chest straps and seat belt.
- Make sure hips bent and against the back of the chair.
- Back is straight.
- Head and neck is centered (not extended back or chin tucked down)



Hypertonic Mouth

- Hypertonic Bite Reflex.
- Do NOT use Disposable plastic utensils or Styrofoam cups.
- Use coated spoons or hard plastic spoons.
- Push into the bite to release only in an critical situation.
- Never put your fingers in their mouth.
- Safest place to put food: on the side of the gums where the molars are located.

Hypotonia

- Need to be well supported with hips against the chair and appropriate straps.
- Fatigue is a concern. Offer more difficult to manage foods first.



Hypotonic Mouth

- Poor lip closure.
- Poor recognition of food in their mouth so may hold food for a long time.
- Check the child's mouth to make sure the last bite is clear before going on to the next activity.

Use of Recline

- When positioning a child in a wheelchair or other adaptive chair, take a minute to plan how to take them out in the event of an emergency before you start the meal.
- Use recline to help head control and the management of food.
- Too much: might lose control of the food because gravity pulls it to the back of the mouth.
- Too little: might have food fall out of their mouth or have a hard time swallowing.



Behavioral Feeding: When do we address the behavior?

- If its unsafe
- If it impacts diet requirements or restrictions (minimum calories needed for the day, allergies, etc.)
- If it imposes on others.
- When it is not developmentally appropriate

Behavioral strategies

- Prolong presentation
- Positive reinforcement
- Extinction



Adaptive Utensils

- Weighted Utensils: have heavy but balance handles to help with self feeding.
- Helps with tremors and muscle imbalance.
- Helps with sensory awareness.



Adaptive Utensils

- Curved or Bent Utensils: helps with limited mobility.
- Are left or right hand specific.
- Swivel spoons: have a hinge and move with the person.



Adapted Plates and Bowls

- Have a higher rim on one side to help scoop food.
- Place the higher rim in the direction the child has the most mobility to scoop.
- May use a sticky placemat underneath to prevent sliding.



Adapted Cups:

- Non spill cups with a lid
- Help children with less motor control be more independent.
- Many different styles.
- Monitor amount of liquid per drink to prevent choking



Adapted Cups

- Nosey Cups:
- Have a cut out to allow the person feeding to be able to see the liquid to control the flow.
- Can also be used for self feeding.
- Frequently used for thickened liquids.



Adapted Cups

- Straw Squeeze Bottle:
- Used to address behavior, fatigue and poor oral motor skills.
- Partnership between caregiver and child



Combined Approach



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- SOS Sequential Oral Sensory Approach
<https://sosapproachtofeeding.com/why-sos-approach-feeding/>

Case-study Practice

- Luke Skywalker
- 18 months
- Hx. Reflux, no longer medicated
- Poor weight gain
- Difficulty with emotional regulation
- Transitioned to solids and began to regress and refuse foods
- Position: wandering home

Case-study Practice

- Prince Leia
- 12 months
- Hx. Born 28 wks, multiple birth
- G-tube feed (flow rate 90ml/hr), reflux, low tone, unable to sit ind'ly
- Gags on formula and purees

Case-study Practice

- Han Solo
- 2nd grade
- Hx. of Reflux, No other developmental concerns
- Has become increasingly “picky”
- Eat 5 brand specific foods and drinks
pediasure

Case-study Practice

- Baby Yoda
- 16 months
- Genetic Disorder, Infantile Spasms
- Culture: Korean family
- Hx Poor feeder at birth, 5 day NICU stay
- Weaned breast to bottle drinking 200ml
- Placed on Ketogenic diet for seizures,
Unable to transition from purees to mashed
and diced foods, gagging, and loosing weight
(from Sun-Joung, 2013)

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Questions:

