Oral Motor Treatment Strategies

June 16, 2020

Kate Barlow, OT, OTD, OTR

A little about me...

Education:
- Boston University BS in OT, Class of 1997
- Virginia Commonwealth University Post Professional Masters and Doctorate in OT, Class of 2015

Career Path:
- 12 years Public Schools
- 3 years Management
- 3 years Children's Hospital Outpatient
- 4 years Early Intervention: Feeding Consultant
- 5 years Teaching

Trainings:
- Beckman
- Talk Tools
- Vital Stim
- SOS
- Infant Massage
- Feeding Matters

International Mentorship Meeting
Hosted by: Dr. Kate Barlow
Time: June 1st, 2020 3:00 PM Eastern Time (USA)
Topic: Feeding Children with Cerebral Palsy
Presented by Maggie Lamb, SLP
Zoom Meeting ID# 913 9837 1848
Join URL: https://aicedu.zoom.us/j/91398371848

https://libguides.aic.edu/OT_OER/webinars
Handout for the Therapro webinar **Oral Motor Treatment Strategies**
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**Course Objectives**

After this presentation, participants will be able to:
- Understand the importance of screening all children for feeding difficulties
- Apply treatment interventions for specific oral motor deficit areas

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Appropriate foods for a child’s age & chewing skills
Jaw Strength

Development of Chewing Skills:
1. Phasic Bite (food first introduced)
2. Munching (with practice, up and down movements, 6-8 m)
3. Tongue Lateralization (emerges 6-8 m)
4. Chewing
   - Vertical (9-12 m)
   - Diagonal/Lateral (12-18 m)
   - Circular Rotary (16-36 m)

Question?

Why is tongue retraction with lateralization so important for feeding?

Tongue Retraction

- Needed to place food from center of mouth onto teeth (retraction with lateralization)
- Need to properly drink from a cup or straw
- Every sound (phoneme) in the English language requires tongue retraction except "th"
Buccinator Muscle

Orbicularis Oris

Superior Pharyngeal Constrictor

Muscular Sling for Propulsion

- Orbicularis Oris, Buccinator and Superior pharyngeal constrictor muscles work together to create positive pressure
  - Lip seal
  - Narrowing of cheeks

The Happy Eaters
Prevalence of Feeding Problems

“Feeding and swallowing problems are reported in 10% to 25% of all children,
40%-70% in premature infants, and
70%-80% in children with developmental disabilities or cerebral palsy” (Korth & Rendell, 2015)

Prevalence of Feeding Problems

“Feeding disorders occur in approximately 25% to 40% of toddlers and school aged children and range from mild to severe” (Tarbell & Allaire, 2002)

“Approximately 20-50% of normally developing children and 70-89% of children with developmental disabilities are reported to experience some type of feeding problems.” (Benjasuwantep, Chaitthaynon, & Tanamuksorn, 2013)

Pediatric Feeding Disorder Consensus Definition & Conceptual Framework

“Impaired oral intake that is not age-appropriate, and is associated with medical, nutritional, feeding skill, and/or psychosocial dysfunction.” (Godoy et al., 2019)
Pediatric Feeding Disorder
Consensus Definition & Conceptual Framework (2019)

- Proposes a universally accepted definition of pediatric feeding disorders (PDFs), using the World Health Organization’s International Classification of Functioning, Disability and Health
- Definition facilitates a team approach for treatment and health policy
- Defines 4 domains of PDFs: Evaluation in each domain is recommended

(Peday et al., 2019)

### 4 Domains of PDF

- Medical
- Nutritional
- Feeding-Skill
- Psychosocial Factors

(Peday et al., 2019)

OT Evaluation of PFD's

<table>
<thead>
<tr>
<th>Kate's Domains of a Feeding Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral Motor (Feeding Skill &amp; Nutritional Factors)</td>
</tr>
<tr>
<td>Sensory/Picky Eaters (Feeding Skill &amp; Psychosocial factors &amp; Nutritional Factors)</td>
</tr>
<tr>
<td>Avoidance (Medical &amp; Psychosocial factors &amp; Nutritional Factors)</td>
</tr>
<tr>
<td>Posture/Mechanics (Medical &amp; Feeding Skills &amp; Nutritional Factors)</td>
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</tbody>
</table>

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PFD Considerations

Is the child below the 5th Percentile for Weight?

<table>
<thead>
<tr>
<th>Oral Motor</th>
<th>Avoidance</th>
<th>Sensory/Prereq</th>
<th>Position/Mechanics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trunk</td>
<td>Reflux</td>
<td>Current Diet: Always Eats</td>
<td>Feeding chair</td>
</tr>
<tr>
<td>Neck</td>
<td>Constipation</td>
<td>Current Diet: Sometimes Eats</td>
<td>Side lying</td>
</tr>
<tr>
<td>Jaw</td>
<td>Allergies</td>
<td>Current Diet: Will Not Eat</td>
<td>Adaptive Equipment</td>
</tr>
<tr>
<td>Lips</td>
<td>Stress</td>
<td>Current Diet: Used to Eat</td>
<td>Respiratory rate</td>
</tr>
<tr>
<td>Cheeks</td>
<td>Aspiration</td>
<td>5 Target Foods</td>
<td>Oxygen Saturation</td>
</tr>
<tr>
<td>Tongue</td>
<td>PANDAS</td>
<td>Meal Time Routine</td>
<td>Temperature</td>
</tr>
<tr>
<td>TOTs</td>
<td>Liver/renal Function</td>
<td>Daily Schedule of Activities, including meals</td>
<td>Food Consistency</td>
</tr>
<tr>
<td>Thicken</td>
<td>Eosinophilic esophagitis (EOE)</td>
<td>Tolerating Texture &amp; Brushing Teeth</td>
<td>MBS</td>
</tr>
</tbody>
</table>

Assessment

- Start with fun activity while interviewing caregiver (Remember the 3 Ps)
- Assess oral motor skills
  - ROM and Strength for lips, jaw, cheeks and tongue
- Self Feeding Skills/Posture/Mechanics
  - Utensils/open cup/straw
- Sensory Assessment
  - What will the child touch?
  - Sensory Profile?

Oral Motor Assessment: Beckman Oral Motor Protocol

- Requires specialized training
- Administered by trained OT or SLP
- Provides information on which specific muscles require intervention
- Age range: Infant to adult
Free Feeding Screening Tools

https://www.feedingflock.com/tools
- Neonatal Feeding Assessment Tool (NeoEAT) (Parental Questionnaire, Both Bottle & Breast, birth to 7 months)
- Pediatric Eating Assessment Tool (PedEAT) (Parental Questionnaire, 6 months to 7 years)
- Child Oral and Motor Proficiency Scale (ChOMPS) (Parental Questionnaire, 6 months to 7 years)
- Early Feeding Skills Assessment (EFS) (Clinician completed, birth to 6 months)
- Family Management Measure of Feeding (FaMM Feed) (Completed by all family members)
- Feeding Impact Scales (Parental Questionnaire, birth to 18 years)

Oral Motor Assessment

- Lip closure & strength
- Gum Massage
- Posterior Cheek Strength
- Tongue ROM & Strength
- Jaw Strength
- Motor Planning

Treatment Interventions

- Base your treatment interventions from your observed areas of weakness during the assessment.
- Remember that most of the swallowing muscles are Type II muscle fibers. Treatment must work on strengthening muscles with resistance to trigger Type II. You have to challenge the patient.
- Remember to always "warm up" patient first. Get them comfortable & relaxed. (Don’t just try to glove up and stick your hands in their mouth.)
- Give Choices- Give control to the patient
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LIPS

Lip Closure Activities:
- Kisses on the Z-Vibe Animal Tops or hand
- Blowing through a straw or off hand to move a cotton ball or sparkle ball
- Teaching straw drinking through the squeeze bear or juice box

Lip Awareness

- Vibrate with the Z-Vibe
- Place Z-vibe tip or plastic baby spoon in cup of ice water
- Fish Faces in front of a mirror with frosting on the lips
- Place a Cheerio on lip and have patient bite off or move from side to side (children able to retrieve food off lips at 18 months)

Lip Strength

- Blow bubbles
- Talk Tools Bubble Hierarchy
- Blow whistles
- Blow plastic windmills
- Blow Party Blowers
- Resistance exercises
Lip Strength

Talk Tools Lip Press & Button Pull

Jaw Strength

- Beckman Resistive Chewing
  Chew tube 20x R and L
- Lip Prints: “Play Doggie”
- Gum Chewing (Talk Tools has a program)

Jaw Strength

Put anything in Polyester organza:
- Slim Jim, Steak, Chicken Nuggets, etc.
- Babies R Us Munchkin Fresh Food Feeder
Tongue Awareness

- Spice up foods (add tabasco, garlic, etc.)
- Also helps control weight.
- Lick Sour flavors (also facilitates a pucker)
- Lick Fun Dip
- Lick Hot Balls
- Use Z-vibe
- Use iced Z-Vibe tip or Cold Plastic Spoons

Tongue Lateralization

- Use Hard munchables (celery or carrot stick)
- Use mirror and model silly faces
- Use Z-Vibe to facilitate lateralization
- Play tongue “tag” with Z-vibe, lollipop, Slim Jim, Nuk Brush or frozen spoon
- You can work on tongue strength by using resistance with a tongue depressor or Z-vibe while working on lateralization

Tongue Retraction

Talk Tools Straw &
Talk Tools Horn Program

Make Sure straws are not placed on the tongue!
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**Tongue Tip Elevation**

- Emerges 12-15 months
- Use Z-Vibe to facilitate elevation
- Use Nuk brush, Slim Jim or small lollipop to “Tag”
- Talk Tools: Cheerio Hold Up

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**Cheek Awareness & Strength**

- Z-Vibe end tip to inside & outside of cheeks
- Beckman Cheek stretches
- Vital Stim®

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**Infant Massage**

- Improves weight gain
- Improves circulation
- Help with bonding
- Improves digestion & metabolism
- Promotes physical self-awareness
- Helps to soothe and relax child & parent
- Boosts immune system by moving lymph fluid
  
  *(Health & Bainbridge, 2000)*
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**Oral Motor Assessment:**
Beckman Oral Motor Protocol

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**Talk Tools for Oral Motor Treatment Strategies**

Great for children who are cognitively able to follow directions.

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**G-Tube to Oral Transition**

Marsha Dunn Klein, MES; OTR/L & Suzanne Evans Morris, PhD, CCC-SLP

www.notube.com
### Feeding Matters Conference 2020
Rachel Rosen, MD

- Only 20% of aspirating kids get pneumonia
- Even if kids are aspirating, the recommendation is now to keep them eating something to continue to improve swallow function. Avoid NPO if possible
- Reducing G-tubes is an attainable goal- only 5% of aspirating children are now getting G-tubes (and no increase with hospital admissions)
- Use homemade blends when possible and thicken G-tube feeds

<table>
<thead>
<tr>
<th>Feeding Matters Conference 2020</th>
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<tbody>
<tr>
<td>Rachel Rosen, MD</td>
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<tr>
<td></td>
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<tr>
<td>• Thickening liquids improves swallow for both reflux and aspiration</td>
</tr>
<tr>
<td>• Thicken breast milk when necessary with commercial thickener (get MD approval for children under 12 months)</td>
</tr>
<tr>
<td>• Breast milk in lungs compared to formula was actually worse than formula</td>
</tr>
<tr>
<td>• Consult nutritionist for thickening for osmolality guidelines</td>
</tr>
</tbody>
</table>

### Questions about Feeding?

Please feel free to email me:
Kate.barlow@aic.edu
References: Continuing Education

1. Beckman Oral Motor www.beckmanoralmotor.com
2. Talk Tools www.talktools.com
3. SOS (Sequential Oral Sensory) www.sosapproach-conferences.com

References- Books

- Infant and Child Feeding and Swallowing: OT Assessment & Intervention by Sherna Marcus, BScOT & Suzanne Bratton, MA, BScOT
- Pediatric Feeding Disorders; Evaluation & Treatment by Kelly VanDahm, MS, CCC-SLP
- Pre-Feeding Skills, Second Edition, by Suzanne Evans Morris and Marsha Dunn Klein
- Feeding and Nutrition for the Child with Special Needs: Handouts for Parents by Marsha Dunn Klein
References- Books

- Lip Prints by Joanne Hanson

- Tips & Techniques for the Z-Vibe by Debra Lossky, MS, CCC-SLP

References


