Techniques to Expand Food Variety for Children with ASD

Webinar

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Objectives

• Understand common issues of feeding problems for children with autism

• When to seek professional help for your child

• What strategies can you do at home to expand food variety
Defining Feeding Disorder

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Feeding Disorders

Variations in ingestive behavior that are sufficiently divergent from the norm to result in personal or familial distress, social or developmental risk, or negative health consequences.

(Kedesdy & Budd, 2001)
Symptoms of Feeding Disorders

– Limited food selection – less than 20 different foods, limited food groups
– Averse reaction to new foods
– Feeding skills inconsistent with child's developmental age
– Food jags
Food Jags

• Insistence on eating the same foods in the same manner over long periods of time
• Child will eventually tire of the food and not replace it. Food variety increasingly narrows
DSM-IVTR Feeding Disorder definition

• Persistent failure to eat adequately as reflected in failure to gain weight or weight loss for greater than 1 month
  – Not GI or general medical condition
  – Not accounted by mental disorder such as rumination
  – Not lack of food in the home
  – Onset before age 6

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DSM-5 Proposed definition (2013)

• Avoidant/Restrictive Food Intake Disorder
  – Eating or feeding disturbance (including but not limited to apparent lack of interest in eating or food avoidance based on sensory characteristics of food; or concern about aversive consequences of eating) as manifested by persistent failure to meet appropriate nutritional and/or energy needs associated with…. 
DSM-5...

- Significant weight loss
- Significant nutritional deficiency
- Dependence on enteral feeding or nutritional supplements
- Marked interference with psychosocial functioning
Up to 25% of typical children and up to 80% of children with developmental disabilities have feeding disorders.

(Manikam & Perman, 2000)
Feeding Obstacles for Children with Autism

• Social interaction surrounding food
• Repetitive patterns in food preferences
• Opportunities for varied food experiences
• Communication about food
  – Hunger and satiety
  – Food preferences
Symptoms of feeding disorders in children with autism

- Limited food selection (57%*)
- Limited *food groups* (72%*)
- Averse reaction to *new foods*
- Food *jags*
- Feeding *skills* inconsistent with child's developmental age (23.2% have oral motor problems*)

*percentages from parent report of 175 children with autism and feeding problems. Schreck, & Williams 2005*
Problem Eating Behaviors

- Trying new foods (69%)
- Taking medicine (62%)
- Eating new foods (60%)
- Mouthing objects (56%)
- Rituals surrounding (46%)
- Insisting on routine (44%)

(Williams, Dalrymple & Neal 2000)
Review of studies has shown that between 46% and 89% of children with autism spectrum disorders have a feeding disorder.

Ledford & Gast 2006
Causes of Feeding Disorders

- Medical concerns
- Oral motor issues
- Sensory differences
- Behavioral factors
Medical Concerns

• Pain with feeding
• Reflux
• Early fullness
• Diarrhea
• Constipation
When to see the doctor

- History of or current reflux
- Complaints of pain with eating
- When eating gets full too quickly
- Vomiting
- Anemia
- Bad breath

- Pain or strain with bowel movement
- Constipation
- Diarrhea
- Frequent bowel accidents
- Poor weight gain or weight loss
Symptoms of oral motor deficits

- Long feeding times (30 min+)
- Difficulty chewing
- Food stuck in palate
- Multiple/inefficient swallows
- Wet Sounds
- Difficulty managing mixed food textures
When to see a speech therapist

- Consistent Gagging/Coughing
- History of pneumonia
- Drooling/pocketing of food/food stuck
- Multiple/inefficient swallows
- Has trouble eating tough foods
Nutritional Consequences of Feeding Disorders

• Deficit of any nutrient

• Nutritional risks
  – poor growth
  – brain development
  – metabolic processes
  – bone health
  – immune status

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When to see a Registered Dietitian

• Growth or weight issues
• Very limited diets
• Medically restricted diets
  – Complex allergies
  – Food intolerances
• Risk of nutrient deficiencies
• Use of formula or tube feedings
Behavioral Issues

• Disruptive behaviors
• Anxiety
• Parent-child interaction issues
• Developmental concerns
When to see a Psychologist

- History of anxiety in family, leading to avoidance of various activities also including food
- Rigidity regarding food, obsessive/compulsive behaviors associated with eating
- Family dynamics that contribute to restricted eating patterns
When to see a Occupational Therapist

• Won’t eat certain textures of foods
• Won’t touch foods – doesn’t like hands to get dirty
• Difficulty using utensils, opening food packages, drinking from an open cup, or drinking from a straw
• Rituals surrounding or insisting on routine of mealtime impacts function (social, nutrition, self-care)
Strategies you can try at home
Choose the right strategy for your child and your family

Don’t tackle everything at once
Mealtime Structure

• Dinner Table
  – Sitting
  – Food interaction
  – Modeling from others
Sitting at the table

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Sitting at the table

Where to start

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Food interaction
Ideas for food interaction

- Assist with grocery shopping
- Help put food away
- Cooking
- Food preparation
- Serving food
- Put non-preferred food on plate – don’t have to eat it
- Pick up food item and throw away in garbage
- Kiss the food item good bye before throwing it away
- Take bite of food item but you can spit it out
Modeling from others

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Mealtime Structure

• Hunger planning
  – At least 1 1/2 to 2 hours between meals/snacks
  – Come to dinner table hungry
Time to eat!!

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Feeding Intervention for Children Diagnosed with ASD

• Most research utilized behavioral strategies.
  – differential reinforcement of alternative behaviors (DRA)
  – simultaneous presentation
  – fading
  – behavioral momentum
  – response cost
  – sequential presentation
  – negative reinforcement
## Differential Reinforcement of Alternative Behaviors (DRA)

<table>
<thead>
<tr>
<th>Reward (positive reinforcement)</th>
<th>Ignore</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Sitting at the table</td>
<td>• Negative comments – yuck, I don’t like that</td>
</tr>
<tr>
<td>• Having new food on their plate</td>
<td>• Spitting food out</td>
</tr>
<tr>
<td>• Taking a bite of the new food</td>
<td>• Not eating the food</td>
</tr>
<tr>
<td>• Helping prepare new food</td>
<td>• Gagging/vomiting <strong>non-preferred</strong> food</td>
</tr>
</tbody>
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Marwan’s Smiley Faces

1  2  3  4  5
How to use reinforcer

• Make sure they want the reinforcer – may need to change it frequently
  – Reward box
    • Stickers
    • Small food items – mini m&m’s, fruit chews, skittles
    • Puzzles
    • Light up toys
    • Favorite video game – 1 short turn
    • Extra tv, video game time – can earn minutes
How to use reinforcer

- **Immediately**
- **Consistently** – when learning to eat new food
- **Contingently** – they do not get the reward unless they demonstrate the behavior you are teaching (sitting at the table, touching food to lips, etc)
First/Then Board

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First/Then Board

- First
- Then

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If it doesn’t work

**Decrease work**
- Decrease number that they have to eat
- If refuse to eat – touch lips, teeth, tongue, take bite and spit out

**Increase reward**
- Increase number of rewards they get – instead of 1 skittle…5 skittles
- Change the reward
- Let them pick the reward
First/Then Board

• First

• Then
Simultaneous Presentation

Pairing preferred with non-preferred
Pairing Preferred Food with Non-Preferred Food

Example: dipping cookie in applesauce, very small piece of lunch meat between 2 crackers

Do not hide it!!!
Pairing preferred with non-preferred

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If it doesn’t work

• Decrease the amount of non-preferred food – start with a VERY SMALL amount
• Give them a reward for eating it
Fading

• Use this with DRA and pairing preferred with non-preferred
  – Decrease frequency of reward
    • Example: reward every bite → reward every 2 bites
  – Increase non-preferred food and decrease preferred food
    • Example: 1 cup juice with ½ teaspoon milk → 1 cup juice with 1 teaspoon milk
    • 2 ritz crackers with ½ tsp peanut butter → 2 ritz crackers with 1 tsp peanut butter
How to prevent/break food jags

- Preventing or breaking a food jag:
  - Food/meal rotation
  - Changing shape, color, taste, and finally texture
Change shape
Change Shape

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Change taste
Change texture

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Some of our favorite foods
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Any questions?
Websites and Newsletters


Mealtimes www.new-vis.com

POPSICLE (Parent Organized Partnerships Supporting Infants and Children Learning to Eat) www.popsicle.org
Resources


References


• Hall, K. (2001). *Pediatric Dysphagia*. DeKalb, IL: Singular


Therapy Settings

• Therapy to address feeding in school or community setting

• Intensive Feeding Therapy Program

See slides at end of presentation
Therapy services – Feeding Teams

• Cincinnati Children’s Feeding Clinic
• Regional Child Development Clinic (Bowling Green)
• St. Mary’s Center for Children (Evansville)
• University of Louisville Autism Center at Kosair Charities
• Weisskopf Child Evaluation Center (Louisville)
Feeding Team Evaluation
Feeding Evaluation

- Interview
- Nutritional evaluation
- Feeding observation
- Oral Structure and function evaluation
- Team planning
- Determine treatment plan
Interview

• Current Status
  – Diagnosis, Feeding Concerns

• Social History
  – Family meal pattern, feeding environment

• Medical History
  – Prenatal, perinatal, infant & childhood
  – Sleep patterns, ear infections, allergies
Interview (continued)

• Feeding & Swallowing History

1. Medical procedures impacting oral experiences
   ie. Feeding tubes, assisted ventilation
2. Experiences effecting feeding patterns ie.
   Prolonged hospitalization, prematurity
3. Aversive behaviors associated with eating
4. Communication associated with eating
Nutritional Evaluation

– 3-Day food diary or usual daily intake
– Nutritional adequacy
– Meal pattern: grazing vs defined meals
– Hunger/Satiety cycle
– Feeding Environment
– Self-feeding skills and opportunities
– Food allergies and intolerances
– Bowel and bladder function
Feeding Observation

- Motor Skills – postural stability, muscle tone, strength, endurance, range of motion and coordination of both oral area and whole body
- Child/parent interaction
- Self-care skills – use of utensils, opening containers, washing hands
- Sensory processing skills – food preferences, touching/smelling/looking at food
- Ingestion of food in a coordinated efficient manner
Oral Structure and Function Evaluation

- Size and symmetry of oral structures
- Strength and tonicity of structures
- Range and coordination of oral movements
Team Planning

- Based on findings of all team members
- Further testing
- Home environment
- Nutritional adequacy
- Food variety
- Diffuse stress at mealtime
- Therapy
Making a Treatment Plan

• Family/team meeting
  – Review findings
  – Review treatment plan
    • Family input
    • Follow-up discussion