Managing Feeding Problems in Children and Young Adults with Autism Spectrum Disorders

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Objectives

Participants will:
1. Learn characteristics of a Feeding Disorder
2. Understand how feeding issues affect people throughout the life span
3. Understand three techniques to address feeding problems
4. Understand how to maintain a healthy balance with eating as children grow into adults

New Definition of a Feeding Disorder

**AVOIDANT RESTRICTIVE FOOD INTAKE DISORDER**

Acronym - **ARFID**

- DSM 5 (2013)
- Now takes into account the following variables:
  - Medical concerns and nutrition
  - Behavioral characteristics
  - Food Selectivity
  - Food refusal
  - Food "Neophobia" – Fear of Food

Medical and Nutrition Issues

- GERD, Chronic vomiting
- Delayed emptying
- Eosinophilic esophagitis
- Celiac disease
- G-tube dependence
- Vitamin Deficiency
- Food allergies
- Upper respiratory infections

ARFID Definition

**Behavioral Eating/Feeding Disturbance**

- Lack of interest in food or eating
- Don’t seem to care about what other people eat
- Don’t show hunger
- Concerns about aversive consequences of eating
- It might make me sick, It tastes bad
- Avoidance based on sensory characteristics of food
- That looks gross, It’s too sticky

Food Selectivity

- Type
- Smell, texture, taste
- Brand, container, type
- Temperature
- Color, Shape
- Sensory
Behavioral Responses

- Food Refusal
- Rules and Rituals
  - Food preparation and presentation
- Food Neophobia

Picky Eating vs. Feeding Disorder

<table>
<thead>
<tr>
<th>Questions</th>
<th>Picky Eaters</th>
<th>Feeding Disorder</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food Groups</td>
<td>1-2 foods per food group</td>
<td>Missing food groups (always vegetables, often protein and fruits alone)</td>
</tr>
<tr>
<td>Selectivity – Brand &amp; Container</td>
<td>Eat any kind of brands family buys</td>
<td>Only eats one specific brand or out of a certain box/container</td>
</tr>
<tr>
<td>Textures</td>
<td>Can eat a variety of textures</td>
<td>Eats mainly purées or crunchy foods</td>
</tr>
<tr>
<td>Food Refusal</td>
<td>Mild, verbal</td>
<td>Starving, throwing food, passive anxious behaviors</td>
</tr>
<tr>
<td>Eating socially, in public</td>
<td>Can eat at a restaurant, friends house, parties</td>
<td>Bring food from home, eat before going out, Don’t go out to eat at all</td>
</tr>
<tr>
<td>Influences, Motivation</td>
<td>Because friends eat it, to get a favorite food</td>
<td>No interest in what others are eating, don’t care about rewards of any kind</td>
</tr>
<tr>
<td>Mealtime Stress</td>
<td>Mealtimes are relatively pleasant.</td>
<td>Significant stress at mealtimes.</td>
</tr>
</tbody>
</table>

Mascola, Bryson, & Agras, 2011

Classical Conditioning

- Classical Conditioning Model
- Aversive event was paired with eating,
- Reflux, pneumonia, feeding tube, choking
- Treat the illness, but food aversion remains
  - What foods have you had a bad experience with?

Origins in ASD

- Can note feeding problems early in infancy
- Difficulty moving from baby food to table food
- Many children are good eaters up until around age 2, or when concerns were raised about ASD
- They slowly drop foods out of their diet and end up with a very narrow list of foods they eat.
- They can encounter aversive events as well.

Food Selectivity in ASD

- BLAND
- SALTY
- WHITE
- CRUNCHY
- DRY
- BRAND

Back to Basics

- Three S’s
  - Structure
  - Schedules
  - Sitting

8 am – Breakfast
12 pm – Lunch
6 pm Dinner
Structure Around Mealtimes

- Very difficult for families to maintain consistent mealtime schedules
- Families are active, busy
- Limited food choices when eating out
- Have more snacks than meals
- Family has different work schedules
- Different caregivers have different rules

Myth or Fact?

- Take away preferred foods (junk foods) and the child will get hungry enough to eat what you serve the family.
- Children won’t starve themselves.

Do Children Experience Hunger?

- Children do not appear to be hungry
- No interest in other people’s food
- Do not typically request food
- Do not eat when they do request food
- Eat a few bites and then are done

What Does Hunger Feel Like?

- Kids sometimes say their stomach grumbles
- Pain, nausea, always feels this way
- Take edge off hunger with grazing (solids & liquids)
- Typically can’t describe being “full”
- Children are left to try and regulate their own systems.

Myth or Fact?

- Leaving food out all day will increase the amount of food a child eats
Grazing and Hunger

- Adults eat small frequent meals throughout the day to lose weight.
- It takes the edge off our hunger so we never feel really hungry or full.
- Affects children in the same way.
- Milk alone can curb hunger and keep a child from eating their meal.

Positive Mealtime Routine

- Meals/snacks at the same time every day
- Need consistent schedule — weekends too
- At least three hours apart
- No grazing, Water only
- Activities between meals

Sitting To Eat

- #1 behavior problem for meals
- *Can't try new foods if we don't sit at the table*
- Designate 1-2 places it is ok to eat at
- Food stays at the table
- Practice sitting for preferred foods and play
- Set a timer – easiest amount of time to start
- Rewarding sitting
- May need that high chair/booster seat again

Make Meals Fun

- Take the Pressure Off!
- Practice new foods at snack time
- Allow child to make choices
- Don't talk about food  (I like it, it tastes good, it's good for you, why don't you like it, it's good for you).
- Engage in positive interactions — can describe food in general (salty, square, red)
- Ignore minor whining and complaining

Mealtime Rules

- Eat what you asked for.
- “Taste with our tongue, not with our eyes.”
- Positive conversation at the dinner table.
- ❌ No TV, Video Games, Phones
- Stay seated until the family is finished eating.
- Assist with preparation and clean-up.
- Post the rules – and follow them!

How to Make Meals Easier

- Teach appropriate ways for the child to refuse
  - Use nice words
  - Ask for a break
  - Reduce the demand
    - Number of bites
    - An easier step
- End on a Good Note
Infants and Toddlers

Onset from Birth to 12 months

- Prematurity
- Delayed onset of baby foods or solids
- Introduce solids/table foods
- Disruptions in the developmental food continuum

Developmental Food Continuum

<table>
<thead>
<tr>
<th>Age</th>
<th>Foods/Fluids</th>
<th>Feeding Skills</th>
<th>Motor Development</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-6 months</td>
<td>Breast milk only, per AAP</td>
<td>Suckle pattern</td>
<td>Improved head control around 4 months</td>
</tr>
<tr>
<td>4-6 months</td>
<td>Thin cereals, Stage 1-2</td>
<td>Decreasing tongue thrust, Move gag reflex back</td>
<td>Open mouth for spoon, Bring hands to mouth</td>
</tr>
<tr>
<td>6-8 months</td>
<td>Thick cereals, Stage 3-4</td>
<td>Munching, Tongue moves from front to back, up and down</td>
<td>Sits with balance (6 mo), Start holding bottle/cup</td>
</tr>
<tr>
<td>8-10 months</td>
<td>Table purees, Soft mashed foods, Meltables</td>
<td>Lateralize tongue, mid to side Finger feeding</td>
<td>Coordinates hand – mouth, Improved cup drinking</td>
</tr>
<tr>
<td>10-12 months</td>
<td>Chopped foods, Soft cubes, Single textures</td>
<td>Emerging rotary chew (12 mo), Efficient bite</td>
<td>Works on spoon feeding</td>
</tr>
</tbody>
</table>

Critical /Sensitive Periods

- Need certain experiences/stimuli to move through developmental stages
- There are periods of development where we learn certain skills better than others
- Language, oral motor skills
- 4-6 months decrease tongue thrust, gag reflex
- 6-12 for munching, tongue movement, chewing
- Missing these stages can cause oral motor delays and create difficulty advancing textures

Illingsworth & Lister, 1964

Other Considerations

- Developmental levels
- Protect airway
- Sit at a 90-90-90 angle
- Chewing and swallowing skills
- Coordinate hand to mouth for independence
- Encouragement, interaction, opportunity

Breathing, Positioning, Eating

Strategies for Infants and Toddlers

- First/Then
- Visuals
- Differential Attention
- Reinforcement
  - Contingent vs. Noncontingent
- Food Exploration?
- Self Feeding
- Responding to tantrums
  - Managing crying, Escape prevention
School Age Children

• Rules/Rituals
• Extreme Selectivity
• Lunch choices
• Food refusal by sight/sound?

Routines/Rituals

• Milk from a bottle, juice in a sippy
• Only mom can cook
• Smell everything first
• Specific order of events at meals
• Food must be cooked and served same way every time
• How are these patterns shaped?

Reinforcement

• Children who aren’t motivated by food itself will need extra incentives
• Want them to learn that trying new things is fun and results in good things
• Hope that over time, as they learn to like new foods, the flavor will take over and rewards can be faded out
• It is a necessary first step in trying new foods

Feeding Concerns

• Myth or Fact?

• Offer preferred foods as rewards for eating non-preferred foods (Grandma’s rule)

Reinforcement

• Before: Prepare meal/snack
• During: Praise, games/toys, technology
• After: Fun activity for cooperation
• Document: Food logs, charts, checklists
• Later: Change rewards often
• Layers of reinforcement help reduce refusal and anxiety
Characteristics of Reinforcement

- Contingent – applied just to target behavior
- Specific – child should know exactly what to do and what will happen if they do or don’t
- Reasonable – relatively easy to complete
- Immediate – as soon as behavior occurs
- Each time – reward each instance of behavior
- Use reminders – Charts, PECS, etc
- Value – must be worth the effort to earn

Myth or Fact?

- Takes 10-20 offers of a new/novel food for a child to learn to like it
- Put something new on their plate every day

Shaping – Basic Strategies

- Shape a Response
- Successive Approximations
- Reinforcement and extinction
- Prompting procedures
- Avoid punishment/aversives
- Combine with other techniques (fading)

Limitations of Shaping

- Time consuming
- Progress not always linear
  - May need to add, change, back up
- Have to monitor progress closely
  - Don’t get stuck
- Inadvertently SR+ and strengthen inappropriate behavior

Shaping

“Touch-Smell-Kiss-Lick-Bite”

- Hierarchy
  - Touch
  - Smell
  - Kiss
  - Lick
  - Hold in teeth
  - Bite
    - Bite and expel
    - Bite, hold and expel
    - Chew and expel
    - Chew and swallow

Based on Koegel et al, 2011
Myth or Fact?

• Since my child likes McDonald’s chicken nuggets, they should like any kind of chicken nuggets.

Food Jags

• Food Jags
  – Eat the same thing every day
  – Certain brands, containers
  – At some point they drop the food out and won’t go back to it
  – Sometimes they do not replace it with other foods
• Children see anything different as “bad”

Food Chaining - Fade a Stimulus

• Pair preferred foods with similar, but different foods (e.g. plain vs. Honey Nut Cheerios)
• Compare and Contrast – shape, color, texture, smell, etc.
• Goal is to learn the foods are more alike than they are different
• Expand the varieties of foods in a category
• Turn an unhealthy choice into a healthy one
  – Fraker, Fishbein and Walburt, 2007

Procedures for Food Chaining

• Always have the pair of foods
• Use the Steps to Eating
• Positive reinforcement
• Monitor behavioral reactions
• What differences are they getting stuck on?
• Keep track of their progress
• Moving to next brand/size – pair with the primary preferred or the most recent one

Chicken Nuggets Food Chain

• Chicken Nuggets – McDonald’s
  – Wendy’s
  – KFC
  – White meat frozen nuggets
  – Pop corn chicken
  – Chicken tenders or strips
  – Fried chicken (skin and chicken only, no bone)
  – Baked chicken (Rotisserie)
  – Grilled chicken
Where to Start

• Foods to offer
  – Similar to foods they already eat
  – By brand, appearance, preparation
  – Match by texture, flavor, shape

• Foods to Avoid
  – Foods that have made them sick
  – Foods they show clear dislike for

Choosing the “Just Right” Foods

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
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<tbody>
<tr>
<td>YUCKY</td>
<td></td>
<td>X</td>
<td>NOT</td>
<td>GOOD</td>
<td>OK</td>
</tr>
<tr>
<td>NOT</td>
<td></td>
<td>GOOD</td>
<td></td>
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<tr>
<td>OK</td>
<td></td>
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<tr>
<td>GOOD</td>
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<tr>
<td>GREAT</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>PICKLES</td>
<td>GF BREAD</td>
<td>BROCCOLI</td>
<td>CRISP APPLES</td>
<td>STEAK</td>
<td></td>
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<tr>
<td>COLESLAW</td>
<td>ONIONS</td>
<td>HONEY DEW MELON</td>
<td>PEACHES</td>
<td>FRENCH FRIES</td>
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<tr>
<td>CABBAGE</td>
<td>PEPPERS</td>
<td>TURNIPS</td>
<td>PEAS</td>
<td>CHOCOLATE</td>
<td></td>
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Pre-Teen/Teenagers

How Kids Think About Food

Anxiety and Autism - Symptoms

• Must be different from behaviors we see commonly associated with ASD.
  – Not just poor communication, poorly judged non-verbal behavior, poor emotional regulation, or stereotypy
  – Persistent beyond typical developmental level
  – Overestimates the danger or fear
  – Does not need cognitive ideation

  – https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4231198/

Behaviors to look for

• Pacing, sitting on hands (self-restraint), tics or tremors not normally present, sudden changes in mood related to a specific event
  • May be passive – staring, ignoring, flat affect
  • Active – yelling, throwing, over focused on topic (can’t let it go), repetitive question asking, overall increased agitation
How Kids Think About Food

- “It looks gross.”
- “It’s gonna make me puke.”
- “I’ve tried it before.” (over a year ago)
- “That’s not mine.”
- Different means bad
- Once they think it will taste bad, it will
- Change the thoughts to change behaviors

Managing Anxiety

<table>
<thead>
<tr>
<th>Concern</th>
<th>Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative Thoughts</td>
<td>Positive self-talk</td>
</tr>
<tr>
<td>Fear we will make them eat</td>
<td>Coping/Relaxation Strategies</td>
</tr>
<tr>
<td>Food overall is stressful</td>
<td>Reassurance</td>
</tr>
<tr>
<td>All or None Thinking</td>
<td>Take the pressure off</td>
</tr>
<tr>
<td>Child doesn’t recognize s/he is anxious</td>
<td>Distractions, reduce demand</td>
</tr>
<tr>
<td>Specific rules/habits that promote anxiety</td>
<td>Logic/Humor</td>
</tr>
<tr>
<td></td>
<td>Same vs Different</td>
</tr>
</tbody>
</table>

Towards Young Adulthood

- Menu Planning
- Shopping
- Cooking
- Restaurants
- Social outings with friends
- Lists, words, pictures, schedules
- Planning ahead

Food preferences are mostly set by teen years
Goal is to help expand within preferences
Allow some diets to be “acceptable”
As anxiety decreases around tasting,
  — Social influences help expand food choices
Tasting and trying continue throughout life

6 Ways to Practice Mindful Eating

<table>
<thead>
<tr>
<th>Mindless Eating</th>
<th>Mindful Eating</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Eating past full and ignoring your body’s signals</td>
<td>Listening to your body and stopping when full</td>
</tr>
<tr>
<td>2. Eating when emotions tell you to eat (i.e., sad, bored, lonely)</td>
<td>Eating when our bodies tell us to eat (i.e., stomach growling, energy low)</td>
</tr>
<tr>
<td>3. Eating alone, at random times and places</td>
<td>Eating with others, at set times and places</td>
</tr>
<tr>
<td>4. Eating foods that are emotionally comforting</td>
<td>Eating foods that are nutritionally healthy</td>
</tr>
<tr>
<td>5. Eating and multitasking</td>
<td>When eating, just eating</td>
</tr>
<tr>
<td>6. Considering a meal an end product</td>
<td>Considering where food comes from</td>
</tr>
</tbody>
</table>

We are always Tasting and Trying
Family Focused Care

Meet Our Team
- **Psychologist (Program Director):** Kimberly Brown, PhD
- **Medical Provider:** Lynn Cole, PNP
- **Registered Dietitian:** Brianne Schmidt, RD
- **Speech Language Pathologist:** Katherine Maruska, MS, CCC-SLP
- **Pediatric Social Worker:** Lisa Luxemberg, LCSW
- **Clinical Coordinator:** Kathy Purcell (585) 275-2986

They can eat veggies!

Summer fun with food