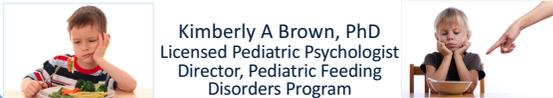


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Managing Feeding Problems in Children and Young Adults with Autism Spectrum Disorders



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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

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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

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Medical and Nutrition Issues

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

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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

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Food Selectivity

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



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Behavioral Responses

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



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Picky Eating vs. Feeding Disorder

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

Masciola, Bryson, & Agras, 2010

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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?



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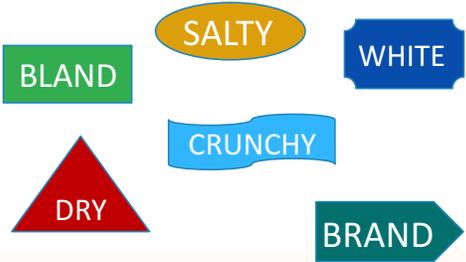
Origins in ASD

- 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.

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Food Selectivity in ASD



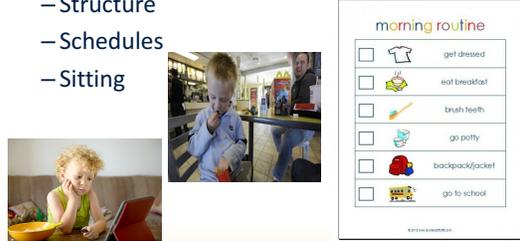
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Back to Basics

- Three S's
 - Structure
 - Schedules
 - Sitting

8 am – Breakfast
12 pm – Lunch
6 pm Dinner



morning routine

<input type="checkbox"/>		get dressed
<input type="checkbox"/>		eat breakfast
<input type="checkbox"/>		brush teeth
<input type="checkbox"/>		go potty
<input type="checkbox"/>		backpack/parcel
<input type="checkbox"/>		go to school

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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



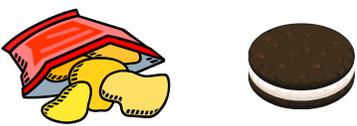
Structure

- Basic routines and rules around eating
- Eating Areas
- Transitions
- Time Limits
- Rules/Expectations
 - Food stays at the table
 - Help set and clear the table
 - Family eats together

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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.



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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



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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 cant describe being "full"
- Children are left to try and regulate their own systems.



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Myth or Fact?

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



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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.

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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



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Sitting To Eat

- #1 behavior problem for meals
- *Cant 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



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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

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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!

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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

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Infants and Toddlers




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Onset from Birth to 12 months

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


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Developmental Food Continuum

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

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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

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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

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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

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School Age Children



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Feeding Concerns

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



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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?



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Myth or Fact?

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



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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

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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

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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"

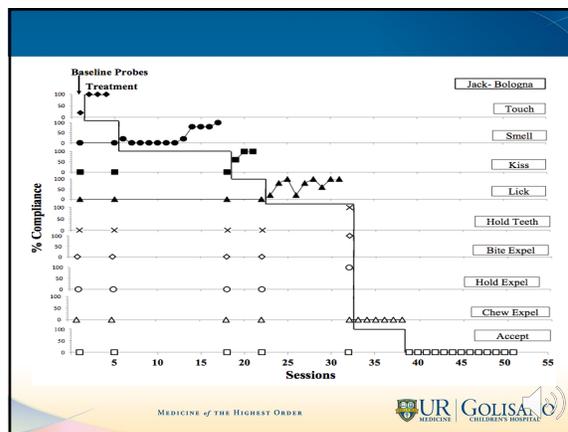
- Hierarchy
 - Touch
 - Smell
 - Kiss
 - Lick
 - Hold in teeth
 - Bite
 - Bite and expel
 - Bite, hold and expel
 - Chew and expel
 - Chew and swallow

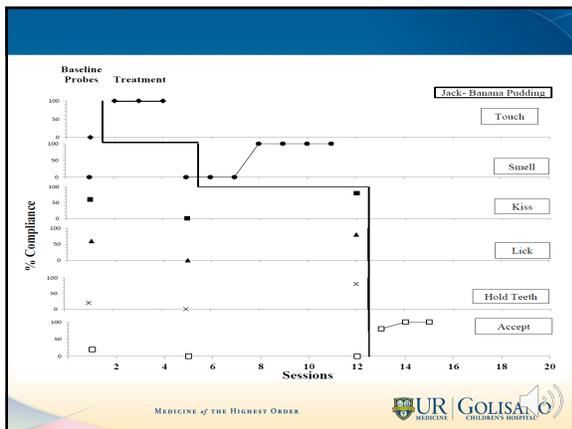





Based on Koegel et al, 2011







Myth or Fact?

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



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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"

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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

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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

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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

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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




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Choosing the "Just Right" Foods

1	2	3	4	5
YUCKY 	NOT GOOD 	OK 	GOOD 	GREAT 
PICKLES	GF BREAD	BROCCOLI	CRISP APPLES	STEAK
COLESLAW	ONIONS	HONEY DEW MELON	PEACHES	FRENCH FRIES
CABBAGE	PEPPERS	TURNIPS	PEAS	CHOCOLATE

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Pre-Teen/Teenagers



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How Kids Think About Food



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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/>

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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

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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

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Managing Anxiety

Concern	Strategy
Negative Thoughts	Positive self-talk Coping/Relaxation Strategies
Fear we will make them eat	Reassurance Take the pressure off
Food overall is stressful	Distractions, reduce demand
All or None Thinking	Rating scales
Child doesn't recognize s/he is anxious	Learning Physical Signs Rating scales
Specific rules/habits that promote anxiety	Logic/Humor Same vs Different

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Towards Young Adulthood

- Menu Planning
- Shopping
- Cooking
- Restaurants
- Social outings with friends

- Lists, words, pictures, schedules
- Planning ahead

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- 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

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6 Ways to Practice Mindful Eating

Mindless Eating

- 1 Eating past full and ignoring your body's signals
- 2 Eating when emotions tell us to eat (i.e., sad, bored, lonely)
- 3 Eating alone, at random times and places
- 4 Eating foods that are emotionally comforting
- 5 Eating and multitasking
- 6 Considering a meal an end product

Mindful Eating

- Listening to your body and stopping when full
- Eating when our bodies tell us to eat (i.e., stomach growling, energy low)
- Eating with others, at set times and places
- Eating foods that are nutritionally healthy
- When eating, just eating
- Considering where food comes from

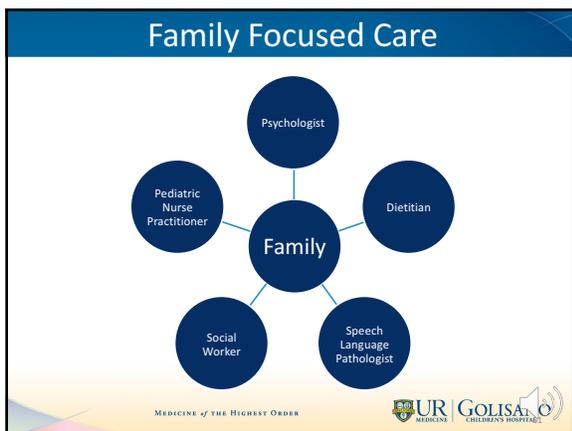
List created by Christopher Willard PsyD

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We are always Tasting and Trying



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