BEHAVIORAL MANAGEMENT OF MALADAPTIVE EATING
I have no commercial or financial relationships that could be construed as a potential conflict of interest.
OBJECTIVES

1. Recognize factors negatively impacting eating behavior
2. Identify appropriate/adaptive eating behavior goals and undesirable mealtime behaviors and skill deficits to target for health-related behavior change
3. Understand behavioral principles and the application of behavioral techniques for managing maladaptive eating
There is significant variability in prevalence estimates of feeding issues in the general population with estimates ranging from 5-45% (Bentovim, 1970; Forsyth, Leventhal, & McCarthy, 1985; Lindberg, Bohlin, & Hagekull, 1991; Mayes & Volkmar, 1993; Manikam & Perman, 2000; Esparo et al., 2004; Lewinsohn et al., 2005; DuBois et al., 2007).

Factors likely impacting variability in prevalence estimates include:
- Classification and distinctions changing over time
- Populations included in estimates (e.g., general versus special populations; age)
- Who is asked (e.g., parent’s perspective), etc.

Average estimate being somewhere around 20% of children who struggle with some type of feeding problem
- Maladaptive eating behaviors, disruptive mealtime behaviors, selective eaters, may not have problems with growth, parents perceive it as problematic, many report mealtime is difficult, not enjoyable/stressful, impacting the parent/child/family relationship

Estimates for for significant feeding problems (restrictive eating, food refusal, gagging/vomiting) in typically developing children being ~1-10% depending on age (Kerwin, 1999; Motion, Northstone, & Edmond, 2001).
Significant feeding problems are more likely associated with delays in growth and/or development.

Significant feeding problems are associated with severe symptoms or “red flags” (Rybak, 2015):
- dysphagia, aspiration, vomiting, diarrhea, failure to thrive

- Much more so for children with medical conditions, with estimates also ranging greatly (from ~40-80%)

- For neurologically impaired children prevalence on the upward end (Babbitt et al., 1994)

- Clinically significant feeding concerns in children with developmental disabilities ~33% (Dahl & Sunderlin, 1986; Palmer & Horn, 1978; Palmer et al., 1975)
INCREASED RISK

- Premature babies, children with muscle weakness, nervous system disorders, some genetic syndromes, GI issues, stroke/head trauma/brain injuries > problems with oral motor function, appetite, high avoidant behaviors

- Children with ASD and sensory integration disorder are also at risk of increased feeding problems due to sensory issues impacting eating (both maladaptive and significantly disordered eating); as well as children with Down Syndrome and CP

- Significant food allergies complicate eating as well
Organic versus non-organic eating problems (Rybak, 2015)

Organic feeding problems are maladaptive eating resulting from organic disease

Organic disease/structural anomaly:
- Neurological issues impacting eating and eating impacting neurological issues (e.g. developmental delays)
- Structural abnormalities
- Cardiorespiratory problems
- Metabolic dysfunction
- Gastrointestinal

Non-organic = selective intake, fear of feeding, low food intake or food refusal WITHOUT underlying organic disease
MALADAPTIVE FEEDING

- Behavioral
  - Food refusal, irritability, anxiety, feeding trauma-based fears/aversions

- Feeding difficulties (Rybak, 2015)
  - prolonged mealtime
  - food refusal lasting one month
  - disruptive and stressful mealtime
  - lack of appropriate independent feeding
  - nocturnal eating in infants and toddlers
  - introducing distractions to increase intake
  - prolonged breast or bottle feeding in toddler and older children
  - failure to introduce advanced textures
Does it have to be either an organic or a behavioral problem???

Maladaptive eating can be isolated behavioral feeding problem OR can present as a concomitant disorder with an underlying organic disease or structural anomaly (Rybak, 2015)

Whether etiology of maladaptive eating behavior is behavioral or not, treatment can/will often involve behavioral techniques
NEURODEVELOPMENTAL FEEDING ISSUES

- ASD and children with sensory sensitivities/dysfunctional sensory modulation patterns (hypo- and hyper-sensitive/arousal/response to stimuli; olfactory, visual, tactile, auditory, and taste over/under/and combo-responders)

- ADHD and limited appetite, problems with initiation, time management, planning, organization, inhibition, regulation, distraction
COMMON MALADAPTIVE BEHAVIORS FOR CHILDREN W/ASD:

- Food selectivity: type, texture, brand, and visual presentation/container even
- Restrictive, rigid, and perseverative
  - This can apply to eating as well: can become obsessed with a certain food/brand; rigid about certain food rituals, presentations, routines (e.g., can only eat one food at a time, can’t eat foods that touch, only eat white foods)
  - Have anxiety about trying new foods = neophobia
- Food refusal (e.g., turning head, refusing to sit/leaving the table, spitting food out, throwing it, screaming, pocketing food)
- Oral motor skill deficits/delays
- Problems relating, empathizing, interacting
  - This can impact child-caregiver relationship and interaction regarding mealtime (e.g., caregiver managing maladaptive behavior/the child’s significant disruptive behavior if a food rule is broken, his/her behavioral response if a need is not met)
Factors that impact eating-eating is the tip of the iceberg

There are many components that impact eating from the oral-motor and oral-sensory, to cognitive and developmental, the medical, the nutritional, and the social, emotional, behavioral, and environmental components....

I don’t address the medical, the physical, the pain, the neurological, the oral motor or sensory skills, the nutritional part

But I do address a lot of the other influencing factors, the other reasons for maladaptive eating behaviors...
REASONS CHILDREN WONT EAT

- **Child Factors**
  - Temperament
  - Mood
  - Motivation
  - Development

- **Parent Factors**
  - Reinforcement
  - Modeling
  - Inappropriate Expectations
  - Lack of clear limits/expectations
  - Coercion
  - Inconsistency
  - Ed/concern re: nutrition

- **Environmental factors:**
  - Lack of exposure to a variety of foods
  - Being allowed to graze throughout the day
  - No feeding schedule or one that is not appropriate re: dev/skill
  - No exposure to a typical meal routine
  - Lack of structure to meals
  - Chaotic/distracting/disorganized table
  - Toys/TV/games on during meals
  - Seating at the table that is not appropriate to postural support
  - Lack of cues re: its time to eat
  - Food insecurities

Adapted from Dr. Kay A. Toomey SOS Approach to Feeding
- Ok, so there are many reasons children won’t eat
- There are many factors potentially negatively impacting eating behavior
- Eating is not necessary easy or instinctual
- Eating is a multi-skilled, multi-step process
- What can you address? What can you do to help? How can you facilitate the child at that step of eating?
Imagine if you lost ambulatory skills and you had to teach someone to walk again and how many complex and integrated systems and skills are involved in the simple skill of ambulation, we don’t say, can’t you just walk, there are 20 or more smalls steps that you have to learn, no pun intended, that come before the end result of walking.

Eating is just as complex and if chewing and swallowing an adequate volume of food, at an appropriate rate, with a variety of food groups represented, without everyone around you and you losing it is the ultimate goal, this also has to be broken down into multiple steps with each step examined.

Treatment of feeding issues should be based on this fundamental concept that because there are so many factors that can impact eating, examining and understanding the factors involved in maladaptive eating is paramount for management.
I do not diagnose or treat the medical issues impacting feeding issues; I am not qualified to speak on motor skills or habits; nor can I advise a caregiver in regard to safe eating abilities, practices, and recommendations; and I am not qualified to make recommendations on adequate nutrition the developmental food continuum....

So what can I do, what do I feel like I can contribute to a multidisciplinary treatment team, what could I teach you more about?
I am qualified to address the psychosocial and behavioral issues impacting eating and involved in more/less successful treatment of maladaptive eating behaviors.

Not so much the what to do,...well, a little bit of the what to do, but more of the how to do it.

If it was easy, we/they/you would be doing it.

It is not always an information deficit.

In modifying maladaptive eating behaviors, I try and focus on giving information about how to make change more likely to happen, how to set yourself up for success, how not to decrease the likelihood of success, what to do when the barriers come up, etc. etc.
I am often providing behavioral recommendations for children on the bottle or liquids too long
Children who won’t feed themselves when they physically can
Children who aren’t gaining weight
Children who have high calorie needs but don’t have a lot of foods they like to eat, are motivated by other things, get burned out
Who are picky, selective, will only eat xyz Dr. Seuss style, where parents become “short order cooks”
Who are gaining too much weight
Who graze all day, prefer snacks to meals
Who eat frequently and in large quantities
I might provide behavioral recommendations/supports to address the following:

- Appropriate rate
- Appropriate portion
- Appropriate bite size
- Appropriate chewing and swallowing
- Appropriate variety of textures and appropriate variety of foods (that are well-balanced and nutritionally sufficient, of course)
- Consumed at the appropriate times of day
- While seated independent, at the table, feeding yourself (if able)
- Initiating and maintaining self-managed eating in a timely manner
- While those around you are also seated at the table with you, also eating and modeling for you adaptive feeding behaviors (aka social modeling)
Staying in my lane

Remember, I am not the person who advises on what you should be eating, what skills you have/don’t have for eating, what sensory issues regarding food you should address and in what order, what postural/physical needs there may be and how to address them, etc. etc. and that is why multi-disciplinary teams are important and why multi-disciplinary informed treatment is ideal.

I am providing psychoeducation and recommendations that center around...
BEHAVIORAL PRINCIPLES & TECHNIQUES

- Functional analysis of behavior
- What do we want to see more of, what do we want to see less of?
- What are the antecedents, the thing that comes before the behavior that is maladaptive, the reasons why the child isn’t/won’t eat?
- What are the consequences or things that happen after the maladaptive eating behavior that can be contributing to reinforcing these behaviors?

and

- How can behavioral and learning skills be applied as a consequence in order to modify or change maladaptive eating behaviors?
THE ABCS OF BEHAVIOR

- **A-> Antecedent**
  - Is the child uncomfortable, in pain? Have underdeveloped skills, limited appetite? Doesn’t have a schedule/routine? Isn’t being presented foods appropriately? Distracted?

- **B-> Behavior**
  - Is the child eating less? Not wanting or able to eat various foods or various textures? Refusing?

- **C-> Consequence**
  - Is the parent begging, bargaining, pleading? Does the child get fed foods he/she will eat?
Learning theory and the cognitive era versus behavioral era versus cognitive-behavioral era

Classical conditioning versus operant conditioning versus rewards/consequences

Mealtime hygiene

Cues for eating (eat at the table, with table set)

Scheduled meals (considering appetite if this internal motivator is present and relying on external cues if it is not)

Social modeling (show them what you want them to do, have them involved in meal planning, purchasing, prep as developmentally appropriate)

Differential attention-praise/reinforce adaptive eating behaviors and ignore maladaptive

Telling the child what to do as opposed to what not to do (chairs are for sitting)

Be specific regarding what you want the child to do and what will happen if they do/don’t

When targeting a behavior, address one thing at a time
- Shaping: neophobia, treating the scary thing for the child like you would a regular fear/phobia (remember it is the child’s perception that determines the phobia)

- Systematic desensitization; multiple exposure and gradually increase expectation from baseline
  - Touch, smell, lick, kiss, bite

- Chaining, slowly changing one aspect of a food while keeping some things consistent and continuing exposure trials with rewards/consequences
  - Successive approximations of the adaptive behavior
REINFORCERS: AKA WHY SHOULD I BRIBE MY CHILD TO....?

- Rewards and consequences
  - Rewards
- Modifying motivation (internal versus external motivators for behavior)
- Characteristics of reinforcement:
  - Continuous, variable, and interval reinforcement
- Reward schedules: immediate versus delayed rewards
- Reinforcer assessment
- Why won’t my sticker chart work?
- Yes rewards work for a little while and then stop
- Don’t give up on reinforcement, change with it
  - Reward menu
- Contingency management plans
  - If/then
  - adapted based on cognitive functioning as needed
  - Use PECS/Picture

But what does that look like..... Behavioral Interventions in Action:
A TALE OF TWO.... DIFFERENT MALADAPTIVE EATING BEHAVIORS AND THEY MIGHT BE MANAGED IN A BEHAVIORAL HEALTH CONSULTATION MODEL

PICKY EATERS

- Can sometimes need a high number of calories consumed each day
- Can have problems sustaining adequate weight gain; problems with behavior
  - Environmental, temperamental, parental response
  - Successive approximations
  - Rewarding
TREATMENT PLAN: PICKY EATERS/PROBLEM FEEDERS

- Basic bx principles
- Antecedents & consequences of bx
- Meal time hygiene
- Rec structured mealtime (regular schedule, meals at the table, appropriate seating, limited distractions)
  - Set in place cues for eating; have a pre meal routine for transition
- Rec manipulating hunger (limiting access to preferred foods, decrease grazing/snacks & drinks, not replacing prepared meals)
- Rec appropriate presentation of food (clear instruction, appropriate bite size and rate of presentation)
EXPOSURE PLAN
FROM LEAST TO MOST SCARY

1. **Looking** (colors, shape, size) - food on table, near plate, on plate
2. **Touching** (hot, cold, dry, wet, soft, hard, rough, sticky) - it's ok to play with your food
3. **Smelling** (big smell/small smells)
4. **Tasting** (sweet, sour, salty, bitter, crunchy) - put to mouth, kiss, snake taste; Ice cream cone lick
5. **Chewing-Sounds** (loud, quiet, crunchy, squeaky)
6. **Swallowing**

- Always give a small portion of a new/non-pref food on the plate
- Increase interaction with food
- Have a "no thank you" plate with ways to get taste away
- Multiple presentations of foods in multiple ways
- Food Scientists; Food exploration
Use a targeted bx plan to increase consumption of food (e.g., volume, variety, textures) to include:

- Use differential attention and contingency management strategies to reinforce bx change
- Do not reinforce negative mealtime bx
- Shaping involving graduated exposure and rewarding successive approximations
- Bx charts
  - Immediate and delayed rewards
One protein, one starch, one fruit or vegetable

We do not eat the same food every day; If we have a food today, we can not have it tomorrow (we have to wait until the day after tomorrow).
  - If you don’t have enough foods, change something about the food you are repeating (size, shape, color, taste)

We can learn about our food even if we aren’t ready to eat it yet

It takes 10-15 times of eating to decide if you prefer a food or not

Food is fuel for the body; if you do not eat to obtain your energy, you need to rest
TREATMENT PLAN: OVER-EATERS

- Assess mealtime hygiene, eating bx, activity, mood, family/home environment, stressors/changes

- Provide psychoeducation re: BMI (use visual, growth curve); basic bx principles, bx change, and healthy habits

- Assess motivation, strengths, barriers for engaging in healthy habits
  - Motivation
  - Real life barriers = problem solving

- Rec mealtime hygiene (eat based on a schedule not a feeling, moving from an internal to an external motivation for eating; meals at the table; meals together)

- Rec change as a family
Rec use of bx plan to change unhealthy eating and physical activity habits/increase healthy habits

- Self-monitoring
- Stimulus control/reducing triggers
- Contingency management
- Positively rewarding bx change that is associated with a positive health outcome/objective not the actual objective outcome
- Same tips for bx plans apply
- S.M.A.R.T. GOALS
S.M.A.R.T. GOALS

- Goals that are:
  - **Specific**
  - **Measurable**
  - **Active**
  - **Realistic**
  - **Timely**

- Develop a behavior plan

- Options for goals include: limiting portions at mealtime, no snacking between meals, limiting sugary/high calorie/caffeinated drinks, increase water intake, increase vegetable intake, daily physical activity

- Assess possible motivators and rewards and discuss reward schedules
Questions?