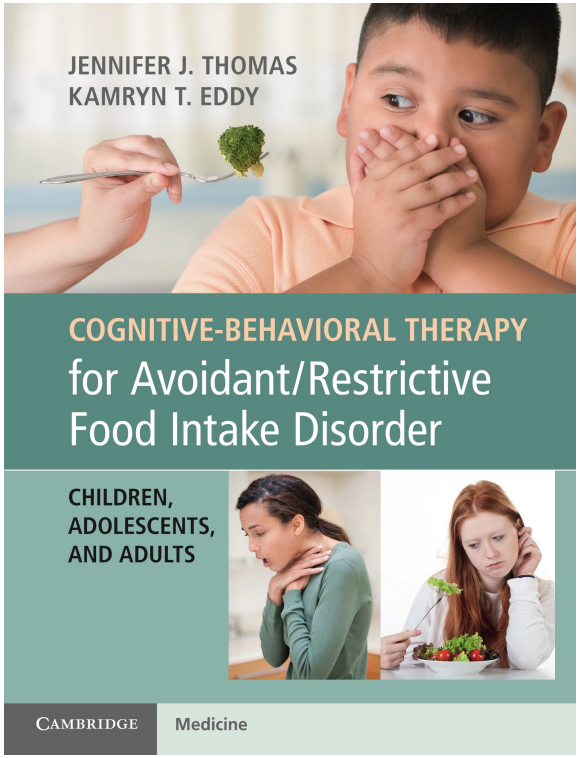
Cognitive-Behavioral Therapy for Avoidant/Restrictive Food Intake Disorder (CBT-AR)



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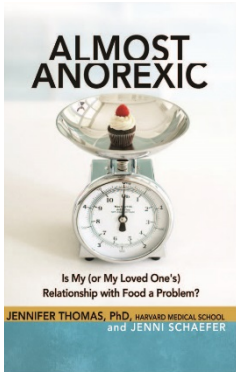
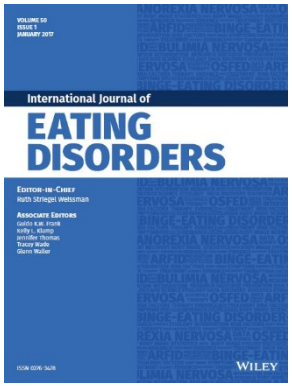
Disclosures (Thomas)

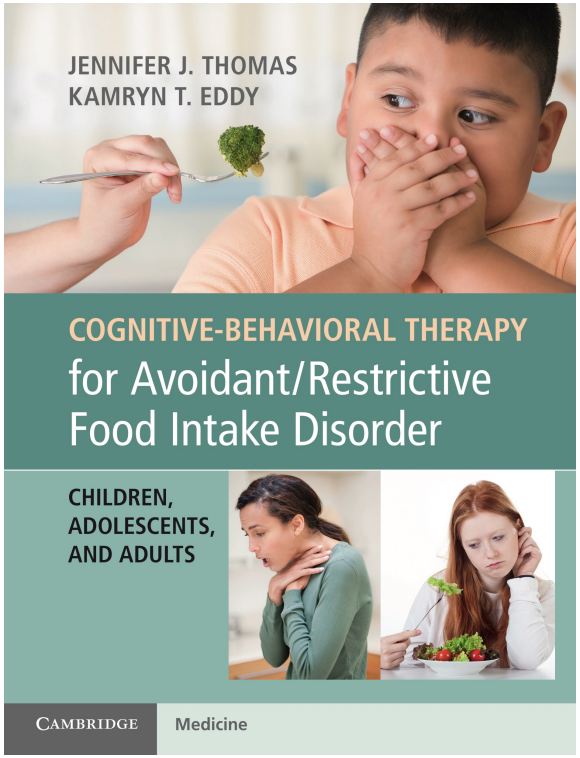




- I receive royalties from Harvard Health Publications/ Hazelden for the sale of my book, *Almost Anorexic: Is My (Or My Loved One's) Relationship with Food a Problem?*.
- I receive royalties from Cambridge University Press for the sale of my book *Cognitive-Behavioral Therapy for Avoidant/Restrictive Food Intake Disorder: Children, Adolescents, and Adults.*
- I receive an honorarium for serving as Associate Editor of the *International Journal of Eating Disorders.*
- I receive a travel stipend for my role on the Board of Directors of the Academy for Eating Disorders.

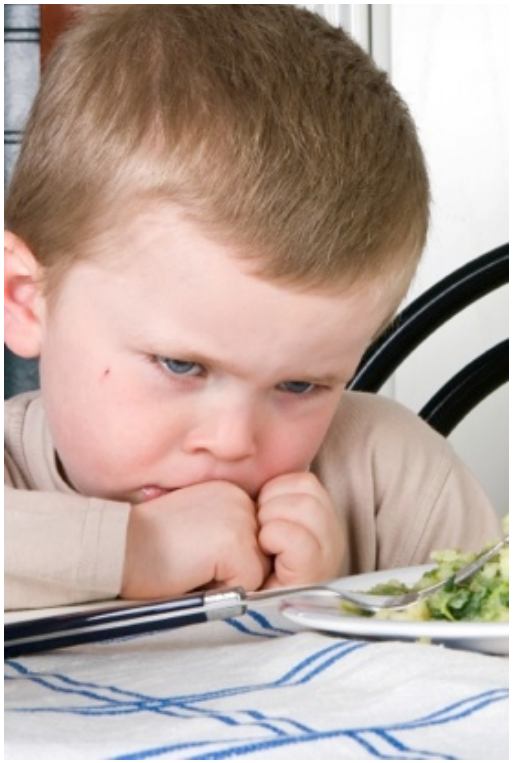
Disclosures (Eddy)

- I receive royalties from Cambridge University Press for the sale of my book *Cognitive-Behavioral Therapy for Avoidant/Restrictive Food Intake Disorder: Children, Adolescents, and Adults.*



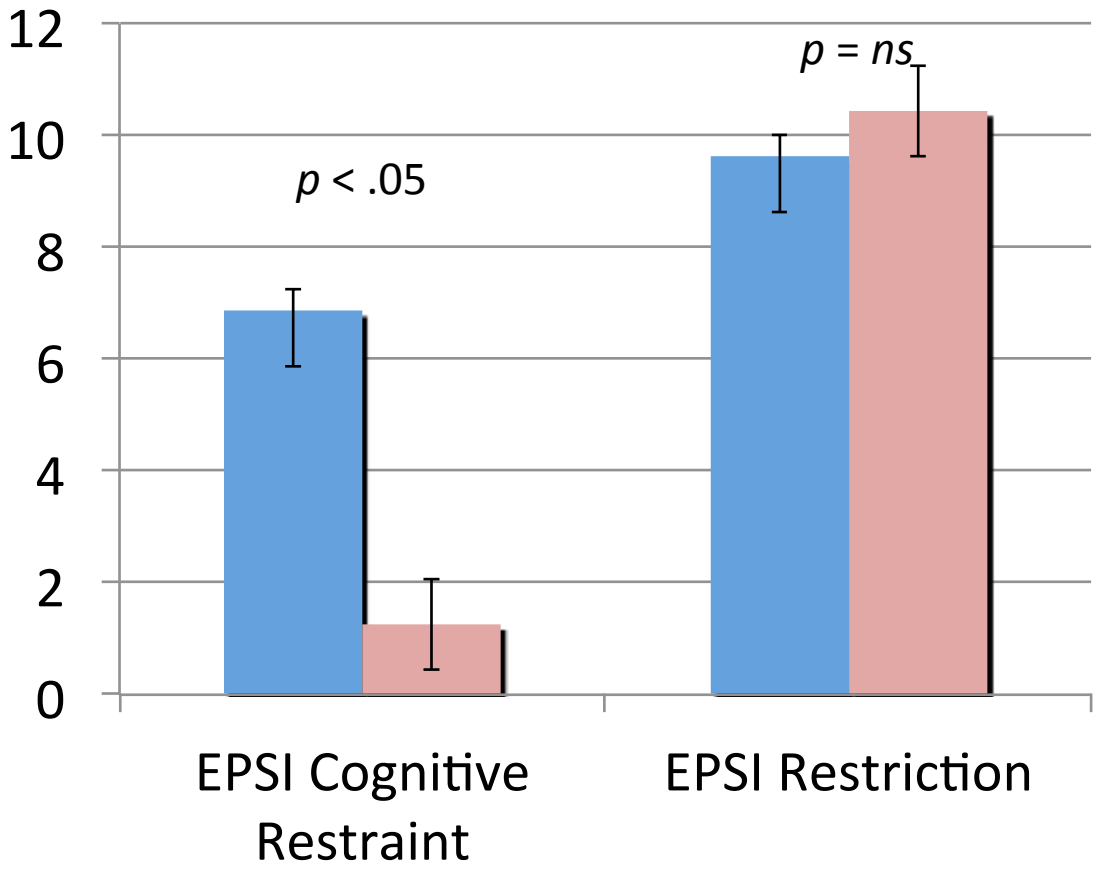
DSM-5 Criteria for ARFID

- Food avoidance or restriction leading to persistent failure to meet nutritional needs, causing ≥ 1 of the following:
  - Significant weight loss
  - Significant nutritional deficiency
  - Dependence on tube feeding or oral supplements
  - Psychosocial impairment
- Not due to lack of available food or cultural practice
- No fear of weight gain or body image disturbance
- Not accounted for by another medical or psychiatric condition



DSM-5, 2013, APA

Although both involve restrictive eating, ARFID differs from AN



N = 133 male and female patients (ages 10-78yo) with restrictive eating disorders at the MGH EDCRP

Becker et al., 2018, *IJED*

3 Prototypical ARFID Presentations

Food selectivity due to sensory sensitivity

Fear of aversive Consequences

Lack of interest in food or eating

Are prototypical presentations categorical or dimensional?

Figure 1a. Categorical Model of Avoidant/Restrictive Eating

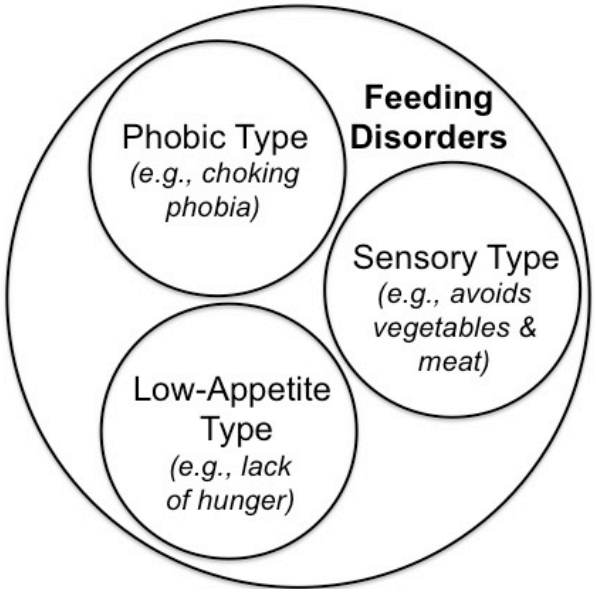
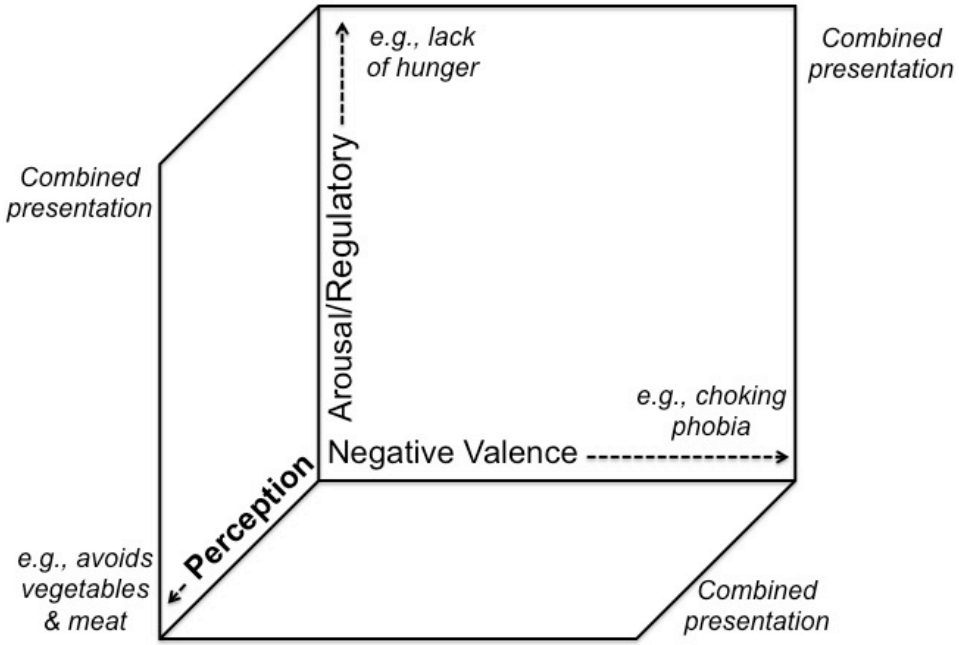


Figure 1b. Dimensional Model of Avoidant/Restrictive Eating



Thomas et al., 2017, *Curr Psychiatry Rep*

New structured interview: PARDI

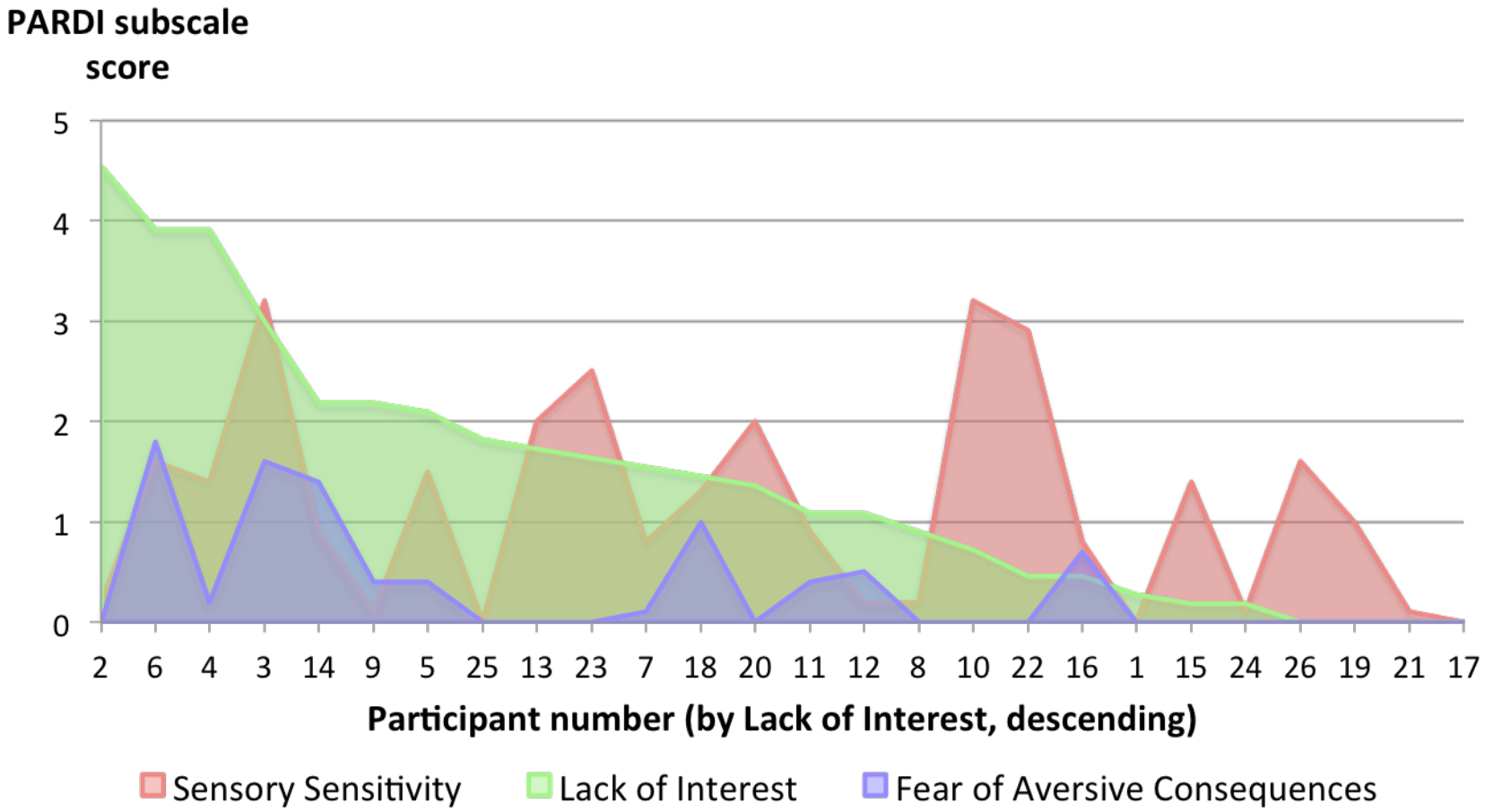
- Pica, ARFID, and Rumination Disorder Interview (PARDI)
  - 45-minute investigator-based interview
  - Confer diagnoses and determine severity of ARFID presentation(s)
  - Severity items scored 0-6

- Evidence of reliability (N = 57)
  - Cronbach's alphas for subscales
    - Sensory sensitivity (.74)
    - Lack of interest (.89)
    - Fear of aversive consequences (.70)
    - Severity (.87)
  - Cohen's kappa for ARFID diagnosis (k = .75)

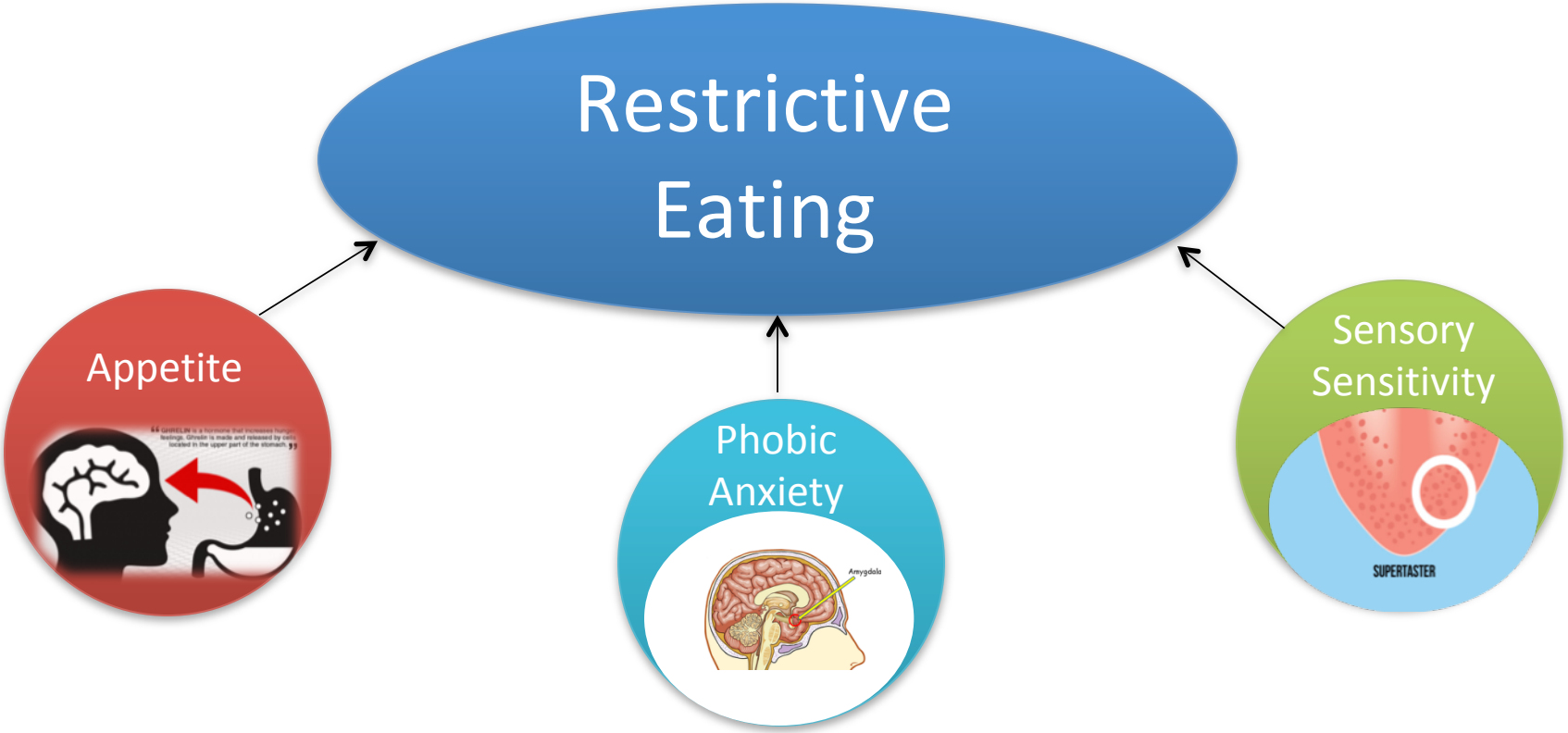
- Evidence of convergent & divergent validity

Bryant-Waugh et al., 2019, *IJED*

PARDI scores suggest ARFID presentations are dimensional & overlapping



Does neurobiology underlie ARFID dimensions?



- R01 (MH 108595, PIs: Thomas, Lawson, & Micali)
- 150 males & females (100 ARFID or A/R eating, 50 HC) ages 10-22yo
- Examining neurobiology of ARIFD and its 3 profiles

For Whom is CBT-AR Appropriate?

Children, adolescents, or adults ages who:

- Have a diagnosis of ARFID
- Are able to cognitively engage in treatment
  - Are ages 10 and up
  - If a developmental disorder is present, it is of mild severity
- Are eating by mouth
  - Are at least able to orally consume liquids or soft foods
  - Do not require tube feeding
- Monitored by a physician
  - ARFID can have serious medical consequences
  - Patients who are underweight are at risk for re-feeding syndrome

4 Stages of CBT-AR

1. Psychoeducation and early change (2-4 sessions)

2. Treatment planning (2 sessions)

3. Address maintaining mechanisms in each ARFID domain (14-22 sessions)
   a. Sensory sensitivity
   b. Fear of aversive consequences
   c. Lack of interest in food or eating

4. Relapse prevention (2 sessions)

Two formats

- Family-supported CBT-AR
  - Child and early adolescent patients (10-15yo)
  - Young adult patients (16yo+) who live at home and have significant weight to gain
- Individual CBT-AR
  - Late adolescent and adult patients without significant weight to gain (16yo+)
- Though session attendees differ, interventions are similar across the age span

Outline of a Typical Session

1. Verbally set the session agenda
2. Weigh the patient
3. Review homework from last session
4. Implement intervention related to current treatment stage
5. Review any agenda items brought in by patient and/or significant other(s)
6. Plan at-home practice task(s) to be completed before next session

CBT-AR: Stage 1

- Psychoeducation on ARFID
- Self- or parent-monitoring
- Regular eating (eating preferred foods at each meal/ snack)
- Personalized formulation
- *If underweight:*
  - Begin to restore weight by increasing volume of preferred foods
  - Conduct in-session therapeutic meal to provide coaching
- *If not underweight:*
  - Make small changes in presentation of preferred foods and/or reintroduce recently dropped foods

Stage 1: Psychoeducation on ARFID

What is ARFID?

Avoidant / Restrictive Food Intake Disorder

- People with ARFID eat a very limited variety or amount of food and it causes problems in their lives
- These problems may be health-related, like losing too much weight, or not getting enough nutrients
- These problems may be social, like not being able to eat meals with others

ARFID is different from other eating disorders, like anorexia nervosa, because people with ARFID do not worry much about how they look, or how much they weigh. Instead, people with ARFID might have one, two, or all three of these important concerns:

1. Some people with ARFID find that novel foods have strange or intense tastes, textures, or smells, and they feel safer eating foods that they know well

2. Others have had scary experiences with food, like throwing up, choking, or allergic reaction, so they may avoid the foods that made them sick, or stop eating altogether

3. Still others don't feel hungry very often, think eating is a chore, or get full very quickly

ARFID is a Psychiatric Disorder

It's important to understand that someone with ARFID is not just being "picky" or "stubborn"

People with ARFID have underlying biological traits that initially made their eating habits a logical choice

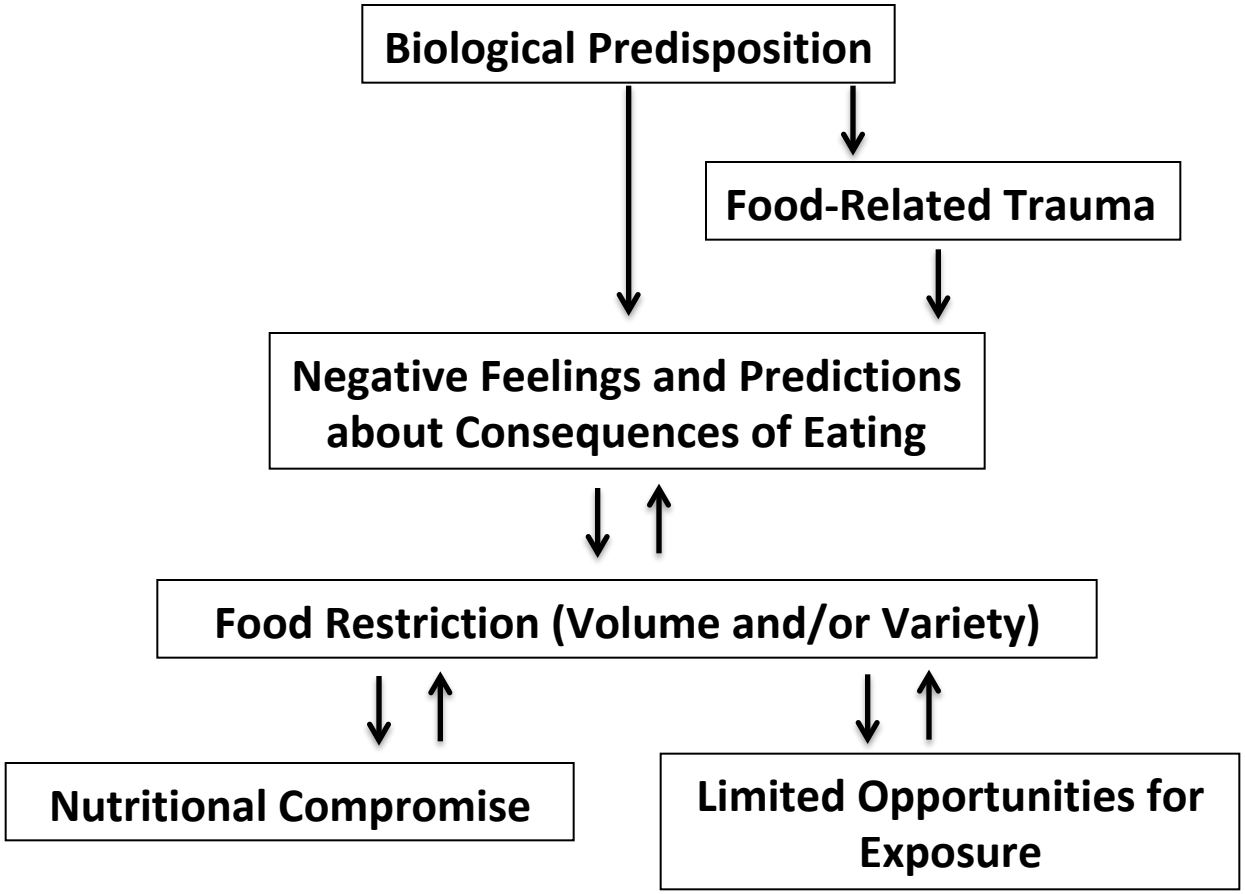
Once established, a pattern of food avoidance can become longstanding and highly resistant to change

GOOD NEWS!

There are helpful steps patients and families can take to interrupt these patterns of behavior

Thomas, J.J. and Eddy, K.T. (2018). *Cognitive-Behavioral Therapy for Avoidant/Restrictive Food Intake Disorder: Children, Adolescents, & Adults.* Cambridge: Cambridge University Press.

Stage 1: CBT Model



Thomas & Eddy, 2019,
Cambridge University Press

Stage 1: First Change

- Rapid change is the expectation from day 1!

- *For underweight patients*:
  - Start adding 500 calories/day this week

- *For non-underweight patients*:
  - Small change in presentation of preferred food
  - Re-introduce previously dropped food
  - Rotate preferred meals
  - Eliminate minor safety behavior

Stage 1: Regular Eating

Time	Food/drink consumed
7:00 am	Breakfast
10:00 am	Snack
1:00 pm	Lunch
4:00 pm	Snack
6:30 pm	Dinner
9:00 pm	Snack

- 3 meals + 2-3 snacks
- Eating every 3-4 hours
- *For underweight patients*: 3 snacks are nearly always necessary
- Programming reminders can help

Stage 1: Therapeutic Meal

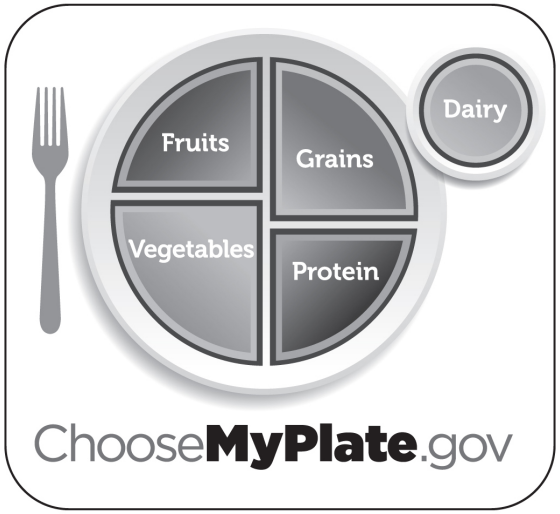
(underweight patients only)

- Meal comprises energy-dense preferred foods plus one novel presentation item
- Therapist coaches parents to give specific instructions (or coaches patient) to increase volume
  - Increase eating speed (“Don’t put down your fork”)
  - Specific requests (“Take another bite of pizza”)
  - Persistence with reasonable demand (“I know you can do it. Take another bite.”)
  - Specific praise (“Great work finishing your pasta!”)
- After patient has eaten adequate volume, parents (or therapist) encourage one bite of novel item

Checklist for Moving to Stage 2

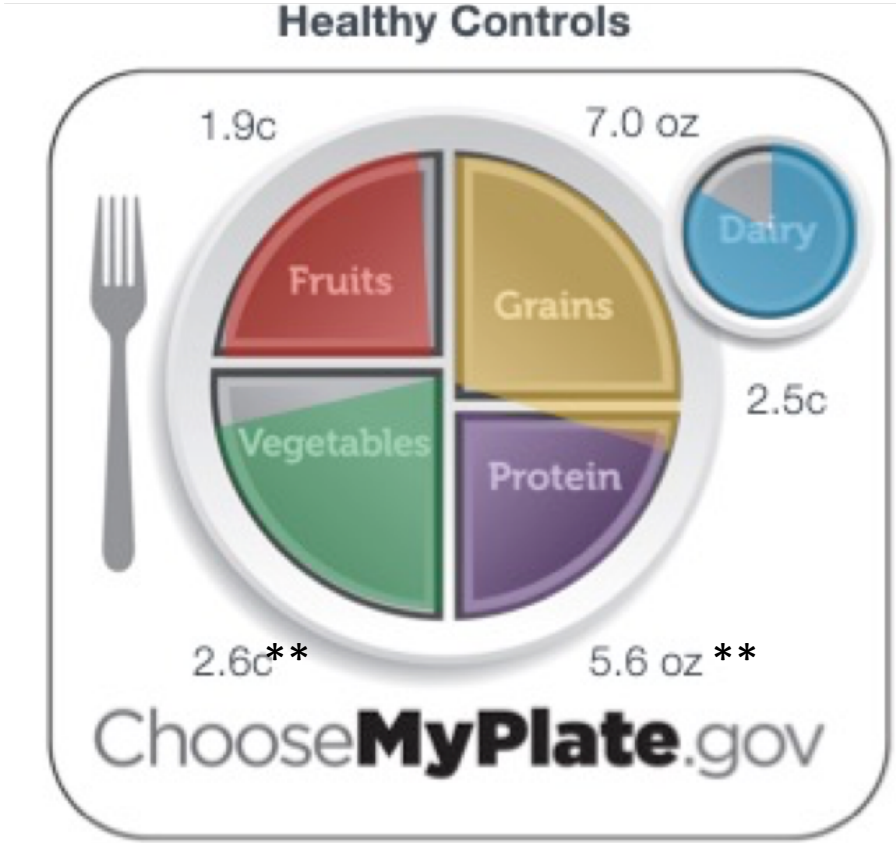
- ✓ The patient understands ARFID and what will happen in CBT-AR
- ✓ The patient understands his or her specific ARFID presentation
- ✓ The patient has established self-monitoring (or parent-monitoring) of daily food intake
- ✓ The patient is eating at regular intervals
- ✓ The patient has begun increasing volume (by 500 calories/day, if underweight) or variety

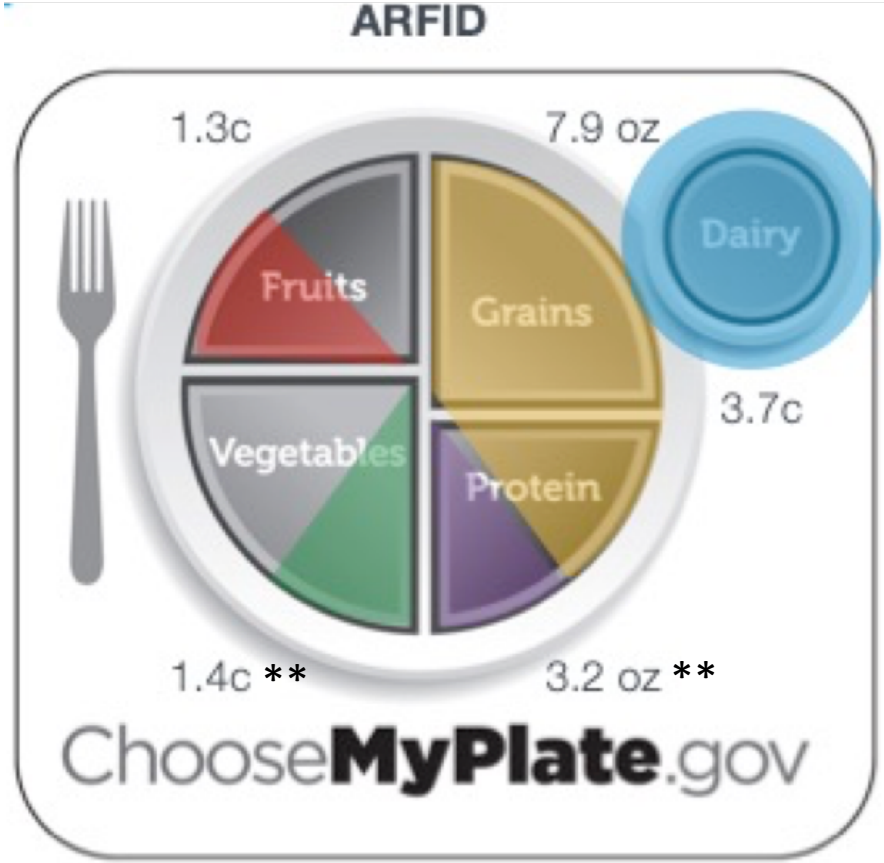
CBT-AR Stage 2



- Psychoeducation about 5 basic food groups and nutrition deficiencies
- Select new foods to learn about in Stage 3

Stage 2: MyPlate Exercise





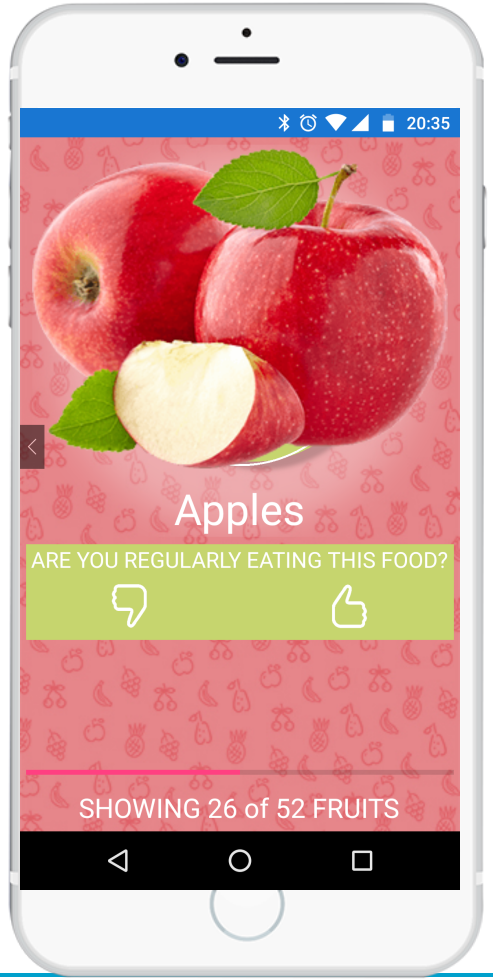
Harshman et al., 2019, EDRS

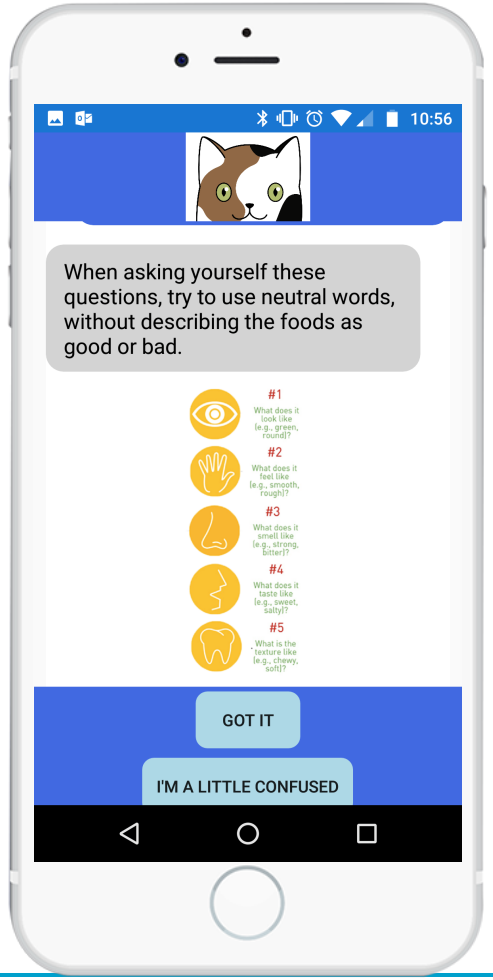
** p < .01

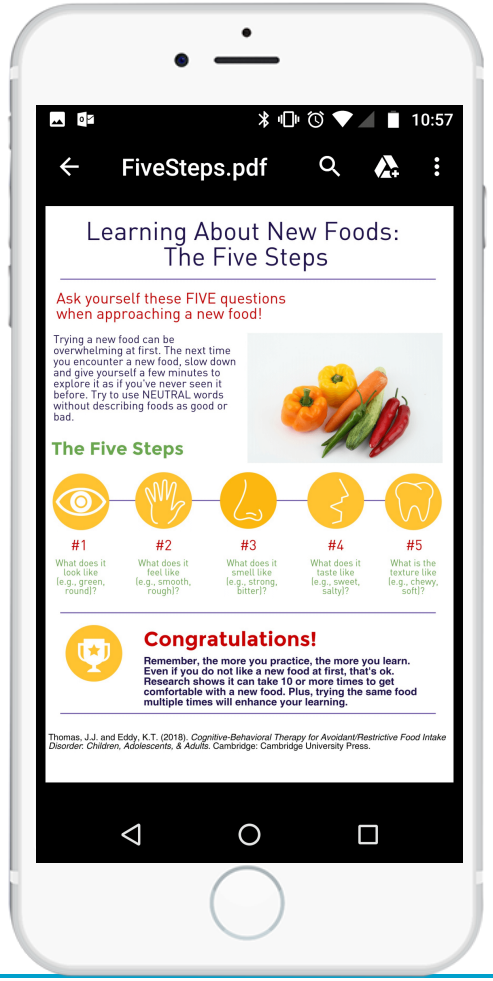
Stage 2: Nutrition Deficiencies

Deficiency	Signs and symptoms	Foods rich in this nutrient (in order of nutrient density)
Vitamin B12	Fatigue, weakness, constipation, loss of appetite, weight loss, numbness, tingling, depression, confusion, poor memory, soreness of mouth/tongue	Liver (all types), fish, meat, poultry, eggs, milk, yogurt, cheese, nutritional yeast Tip: Vitamin B12 is found in animal products and not plant based foods
Vitamin C	Severe deficiency (scurvy) can cause tiredness and weakness with severe medical complications	Bell peppers, orange juice, oranges, grapefruit juice, kiwi, broccoli, strawberries, Brussels sprouts, grapefruit
Zinc	Poor growth, loss of appetite, low immune function, taste changes, depression, hair loss, diarrhea, eye and skin lesions	Oysters, crab, beef, lobster, pork, baked beans, chicken, yogurt, cashews, chickpeas, cheese, oatmeal, milk, fortified cereals Tip: Zinc is easier to absorb in animal sources

Stage 2: Building Blocks worksheet or Fudo app







Checklist for Moving to Stage 3

- ✓ The patient is steadily gaining weight *(if underweight)*
- ✓ The patient has identified foods that could be added to correct any nutritional deficiencies
- ✓ If applicable, the patient has continued to increase eating flexibility by consuming slight variations on preferred foods or eliminating minor safety behaviors
- ✓ Patient has identified several foods from the Primary Food Group Building Blocks to learn about in Stage 3

CBT-AR: Stage 3

Sensory Sensitivity Module

Food selectivity due to sensory sensitivity

- Select foods to learn about that
  - Increase representation from 5 food groups
  - Correct nutritional deficiencies
  - Reduce psychosocial impairment
- *Early sessions:* Repeated exposure to very small portions
- *Later sessions:* Incorporate larger portions into meals and snacks to meet calorie needs

Stage 3: Sensory Sensitivity

Ask yourself these FIVE questions when approaching a new food!

Trying a new food can be overwhelming at first. The next time you encounter a new food, slow down and give yourself a few minutes to explore it as if you've never seen it before. Try to use neutral words without describing foods as good or bad.

The Five Steps

#1	#2	#3	#4	#5
What does it look like (e.g., green, round)?	What does it feel like (e.g., smooth, rough)?	What does it smell like (e.g., strong, bitter)?	What does it taste like (e.g., sweet, salty)?	What is the texture like (e.g., chewy, soft)?

Stage 3: Sensory Sensitivity

Strategies for Incorporating New Foods at Home

*In CBT-AR, you first learn about new foods by TASTING small amounts of simple foods and practicing this at home

*As you continue to learn about more foods, you will work on mixing foods together and trying complex foods

*As you become more comfortable with these foods, it is time to INCORPORATE them into your meals and snacks

Here are some strategies for incorporating new foods into your meals and snacks at home

1 Fade it in

Start with a high proportion of a preferred food (e.g., applesauce) and add a small portion of a novel food (e.g., pieces of raw apple). Then gradually increase the proportion of the novel food while fading out the preferred food

2 Add some spice

Preferred condiments and spices can act as training wheels for trying new foods. For example, add cheese to your broccoli, ketchup to your meat, ranch dressing to your carrots, or garlic salt to vegetables

3 Chain to a goal

Use a preferred food to chain to a novel food. For example, if you currently prefer potato chips, try veggie chips. Before you know it, you might feel comfortable trying raw veggies!

4 Switch it up

If at first you don't succeed, try, try again -but change it up! Try different presentations of novel foods. Think cooked versus raw, salted versus unsalted, etc

5 Deconstruct

If you have never tried a new food like pizza, try starting with one component of the food and then layering on individual components one-by-one. For example, try crust alone, then crust with cheese, then crust with cheese and sauce, and, finally, a slice of pizza!

Thomas, J.J. and Eddy, K.T. (2018). *Cognitive-Behavioral Therapy for Avoidant/Restrictive Food Intake Disorder: Children, Adolescents, & Adults*. Cambridge: Cambridge University Press.

CBT-AR: Stage 3

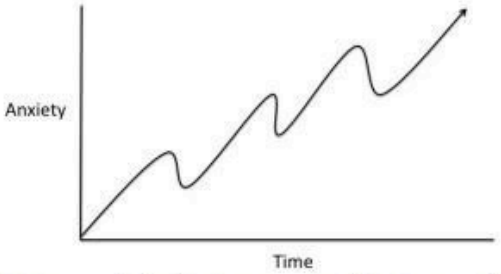
Fear of Aversive Consequences Module

Fear of Aversive Consequences

- Provide psychoeducation on how avoidance increases anxiety
- Create exposure hierarchy to include small steps leading up to food or eating-related situation that led to initial avoidance
- Continue exposures until patient has completed the most distressing task on the hierarchy

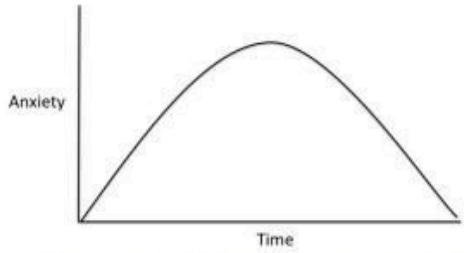
Stage 3: Fear of Aversive Consequences

Avoidance Increases Anxiety



Your anxiety increases when you think about trying an avoided food and decreases when you decide not to. However, anxiety increases even more when you consider trying the food again, and decreases less when you decide not to. In other words - you get more scared and worried every time you avoid!

Exposure Decreases Anxiety



If you try a novel food, your anxiety will increase at first, but it will ultimately decrease as you keep practicing.

The best way to learn whether your predictions will really come true and that you can cope with fear is to eat foods that you fear!

CBT-AR: Stage 3

Lack of Interest in Food or Eating Module

Lack of interest in food or eating

- Interoceptive exposures to increase tolerance of physical sensations:
  - Fullness: Rapidly drink several glasses of water
  - Bloating: Push belly out
  - Nausea: Spin in chair
- Self-monitoring to increase awareness of hunger and fullness
- In-session practice with highly preferred foods

Stage 3: Lack of Interest in Eating or Food

1. Reduce discomfort after eating

Interoceptive exposures

*Increasing your tolerance of full sensations can help you eat enough

*Types of exposures you can do with your therapist in session are: pushing your belly out, gulping water, and spinning in a chair
- -Try all three and then practice the hardest
- -Plan practices as homework (e.g., chug several full glasses of water before lunch each day)

Stage 3: Lack of Interest in Eating or Food

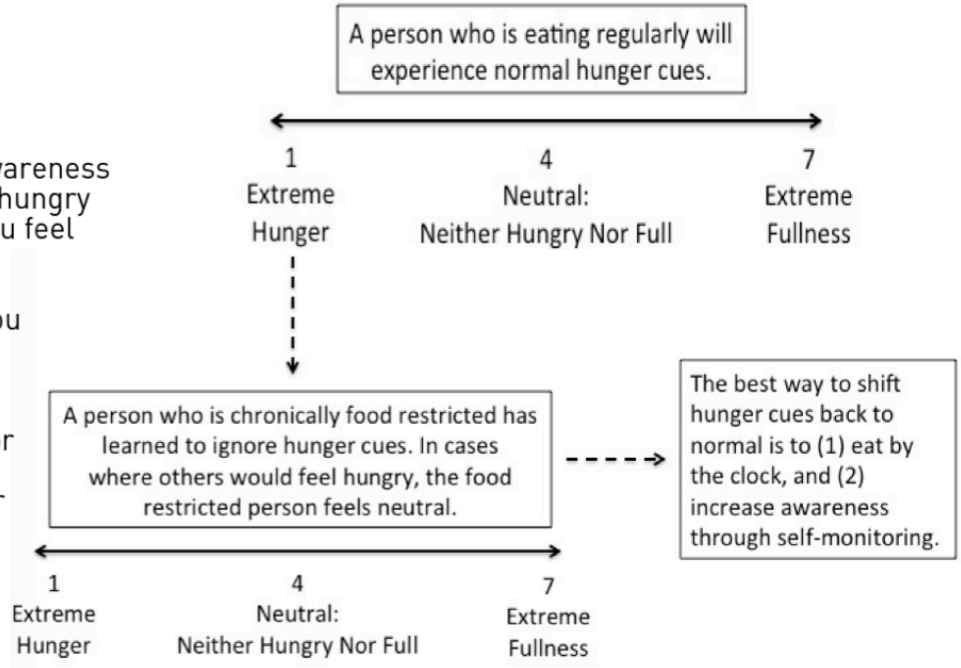
2. Increase your hunger

Recognizing Hunger Cues

*Over time, eating too little confuses your hunger and fullness cues

*The best way to help increase your awareness of hunger cues is to keep track of how hungry you feel before you eat, and how full you feel afterward

*To begin shifting your hunger cues, you will need to start eating at a 3 or 4 (neither hungry nor full), rather than waiting for a 1 (extreme hunger). You will also need to keep eating until a 6 or a 7 (extreme fullness), rather than stopping at a 4 or 5 (neither hungry nor full)



Stage 3: Lack of Interest in Eating or Food

3.Increase enjoyment of eating

Notice what you like about your preferred foods

*Remind yourself of foods you have eaten during happy occasions, such as eating birthday cake with your friends and family

*Pick 5 foods you prefer or used to really enjoy and closely describe them using "The Five Steps" handout

Checklist for Moving on to Stage 4

- ✓ Patient is no longer underweight
- ✓ Patient is eating at regular intervals, and has increased volume or variety within meals and snacks
- ✓ Patient is regularly incorporating foods that will help resolve nutrition deficiencies
- ✓ Patient's primary ARFID maintaining mechanism(s) has been at least partially resolved

CBT-AR: Stage 4

- Evaluate treatment progress
  - Patients unlikely to become “foodies,” even if treatment is successful
  - CBT-AR is designed to expand diet, restore weight, correct nutritional deficiencies, and reduce psychosocial impairment related to ARFID
- Co-create relapse prevention plan
  - Identify CBT-AR strategies to continue
  - Set goals for continued progress

Stage 4: Is the Patient Ready to Complete CBT-AR?

- Patient no longer meets criteria for ARFID or symptom severity has decreased
  - Patient eats and incorporates several foods in 5 food groups
  - Patient's growth (height and weight) has increased to that expected
  - Nutritional deficiencies are resolved or the patient is eating foods to resolve them
  - Patient no longer experiences clinically impairing psychosocial consequences

Acknowledgements

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- Global Foundation for Eating Disorders

Learn more about CBT-AR

Questions?

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Download CBT-AR patient/family workbook (free)

- https://bit.ly/2WvDdy6

Download Pica, ARFID, and Rumination Disorder Interview (PARDI) (free)

- https://bit.ly/2vQD1hq

Download Fudo app (free)

- https://www.novosi.com/fudo