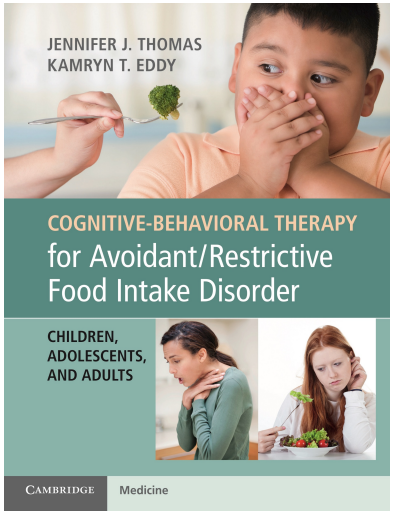
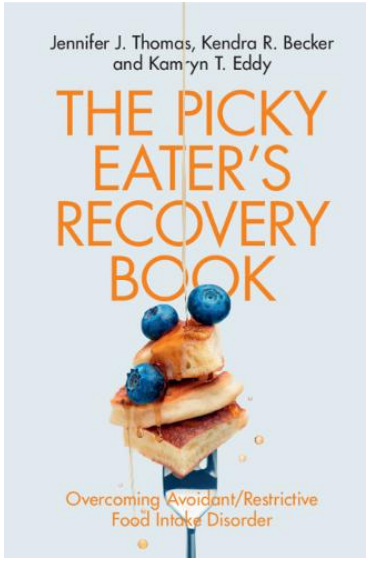
# How to treat patients with ARFID via telehealth

**Jennifer J. Thomas, Ph.D.**
Eating Disorders Clinical & Research Program,
Massachusetts General Hospital
Department of Psychiatry,
Harvard Medical School

**Elissa Chakoff, M.Ed., Ed.S., LMFT**
Recovery Record

# Disclosures




- I receive royalties from Cambridge University Press for the sale of my books *Cognitive-Behavioral Therapy for Avoidant/Restrictive Food Intake Disorder: Children, Adolescents, and Adults;* and *The Picky Eater's Recovery Book: Overcoming Avoidant/Restrictive Food Intake Disorder*.

- 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 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.

# Agenda

1. How is ARFID assessed?

2. What is CBT-AR, and how can it be delivered via telehealth?

3. How can digital tools support CBT-AR delivery?

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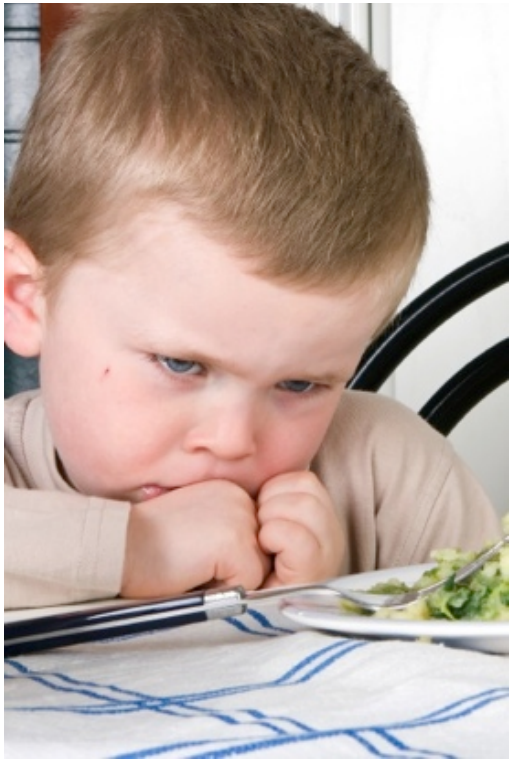
# *DSM-5* Criteria for ARFID

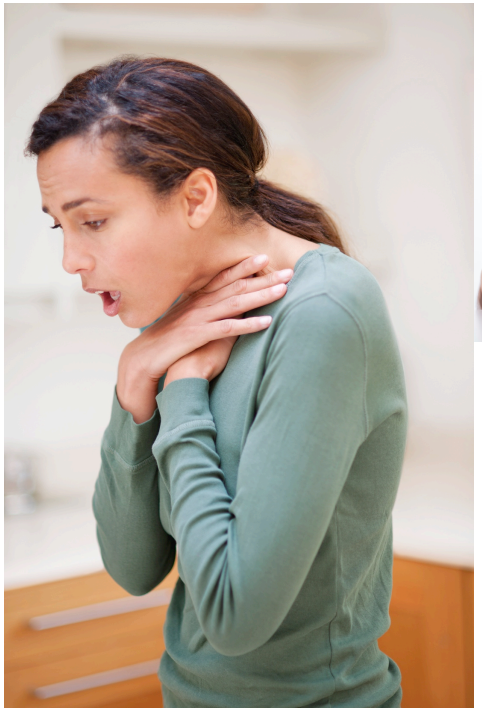
- Persistent failure to meet nutritional needs, causing
  - Significant weight loss/poor growth
  - Significant nutritional deficiency
  - Dependence on supplements
  - Psychosocial impairment
- Not due to lack of available food
- Not accounted for by other medical or psychiatric condition
- No fear of weight gain or body image disturbance



APA, 2013

# 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

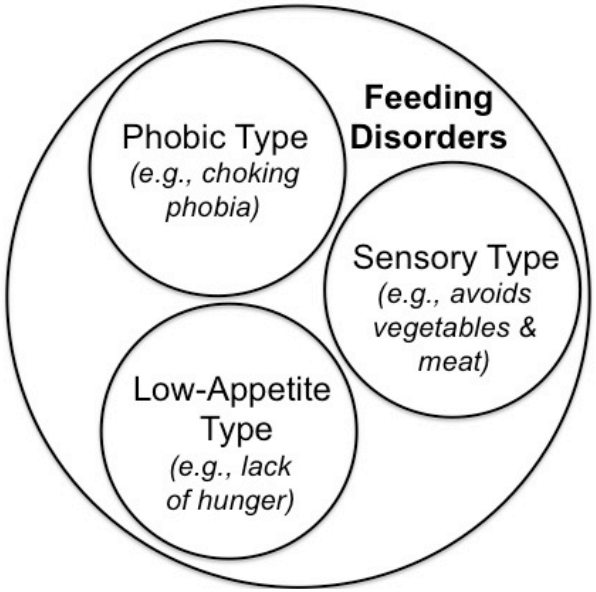
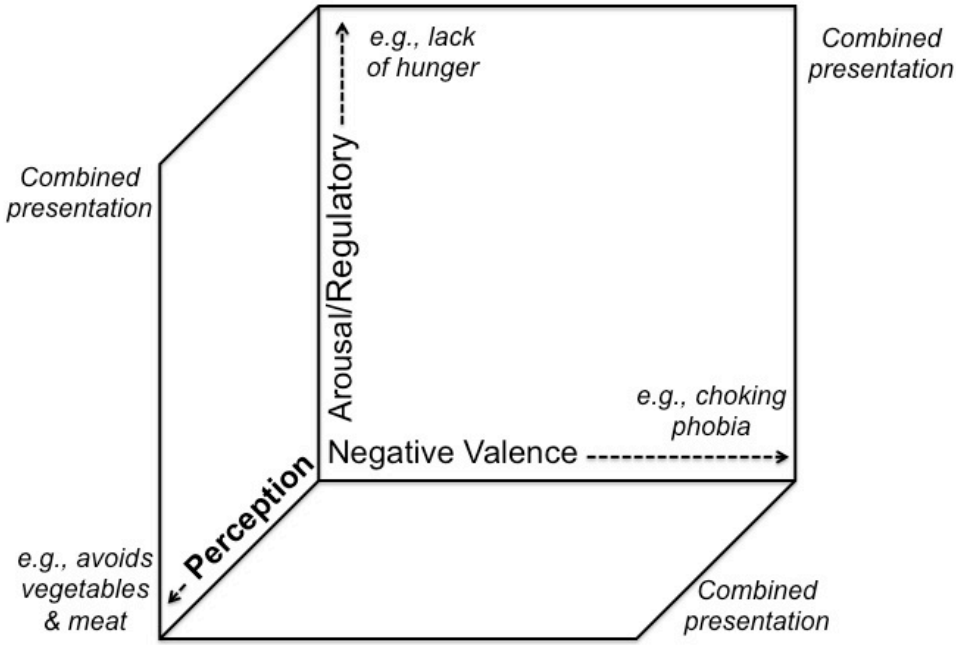



**Figure 1b.** Dimensional Model of Avoidant/Restrictive Eating




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

# ARFID symptom assessment tools

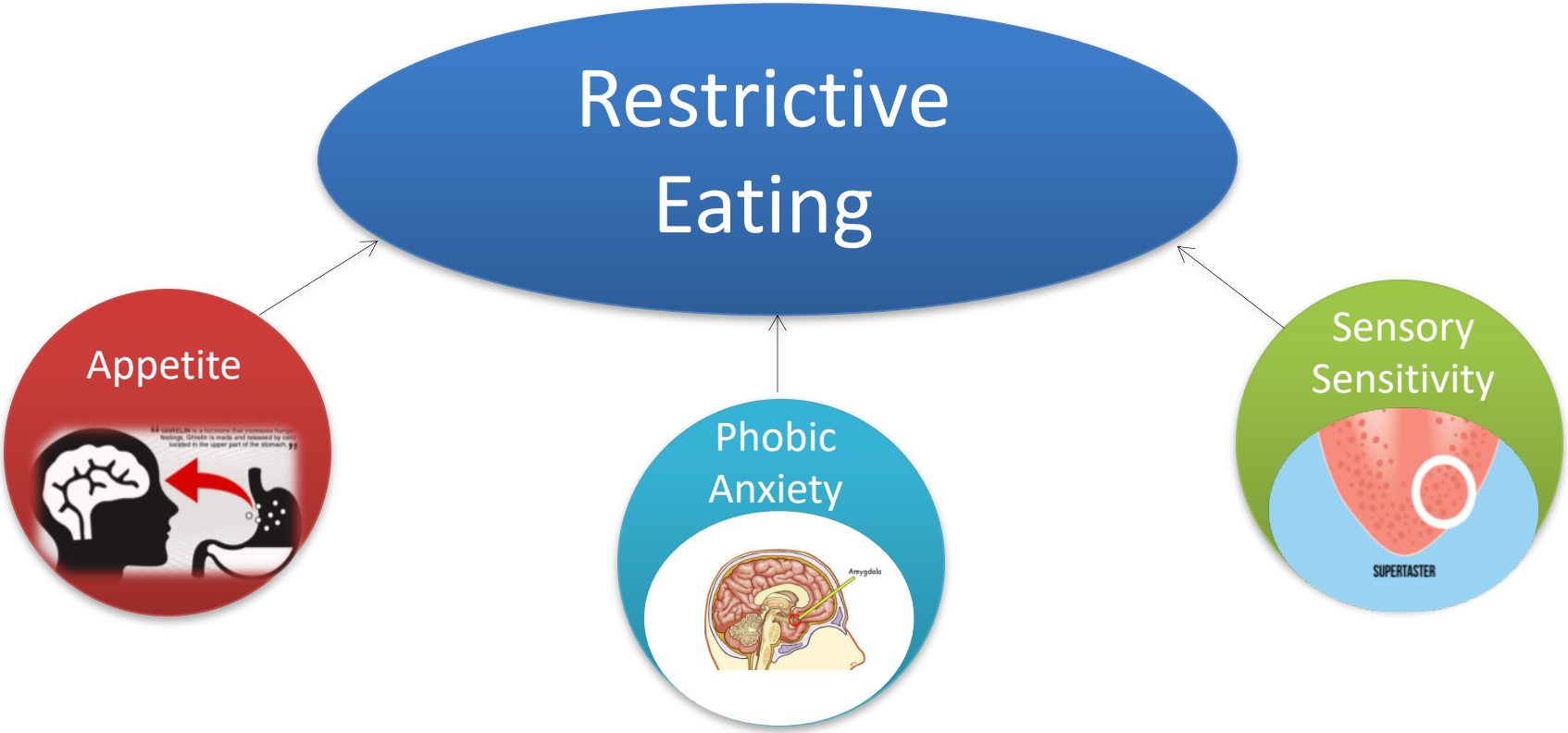
- Pica, ARFID, and Rumination Disorder Questionnaire (PARDI) ARFID-Questionnaire (PARDI-AR-Q)
  - Self-report questionnaire that maps on to *DSM-5* criteria
  - Includes severity of impact and severity of each ARFID prototype
  - Self version for youth and adults; parent version for children

  Bryant-Waugh et al., 2019 *IJED;* Thomas et al., in prep, 2020 *EDRS*

- Nine-Item ARFID Survey (NIAS)
  - Self-report screener
  - Cut-offs validated to detect each ARFID prototype:
    - ≥ 10 Sensory/Pick Eating Subscale
    - ≥ 10 Fear Subscale
    - ≥ 9 Lack of Interest Subscale
  - Adult survey available, with pediatric surveys forthcoming

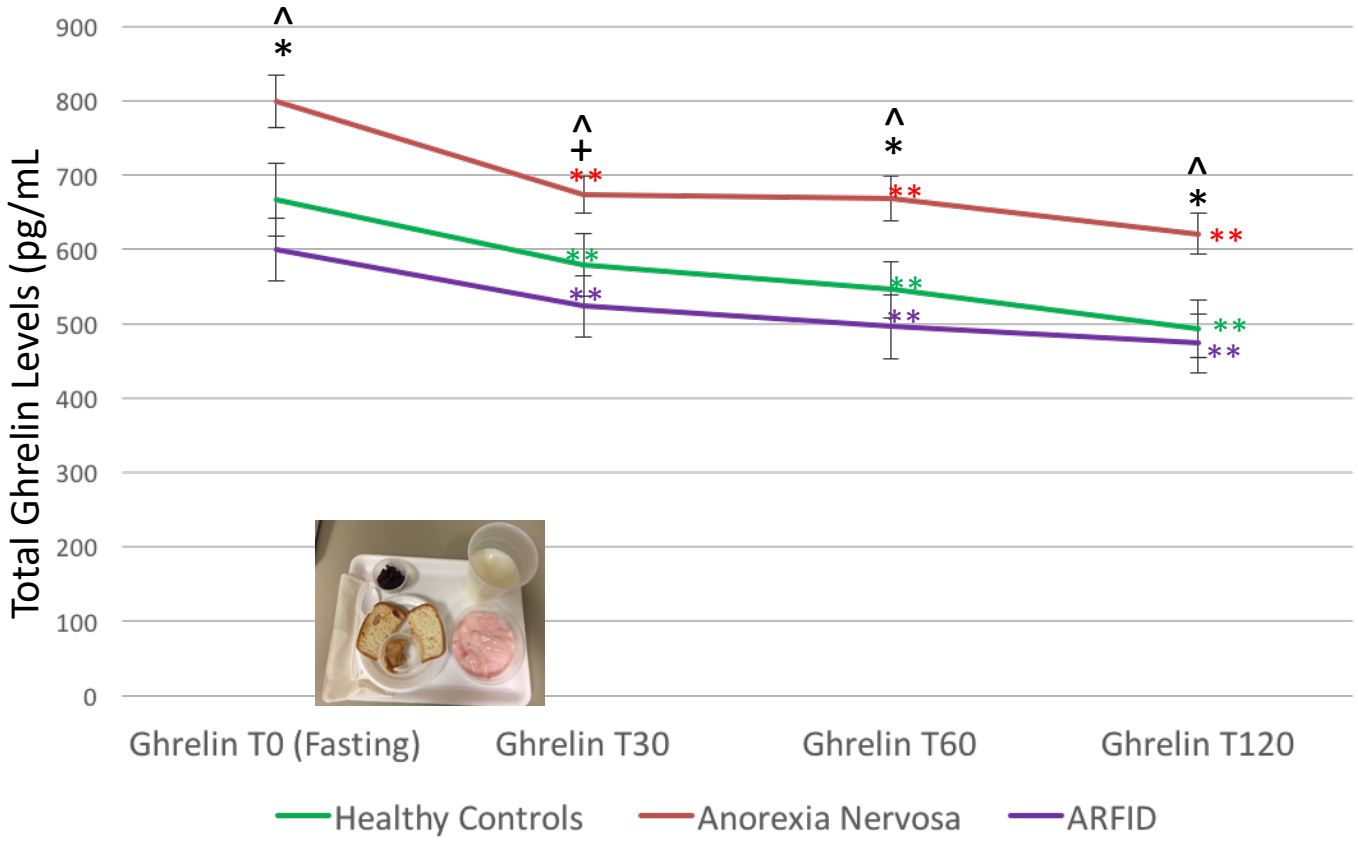
Zickraf & Ellis, 2017 *Appetite;* Burton Murray, Dreier, et al. in prep

# Does neurobiology underlie ARFID dimensions?




- R01 (MH 108595, PIs: Thomas, Lawson, & Micali)
- 134 males & females (100 ARFID or A/R eating, 34 HC) ages 10-23yo
- Examining neurobiology of ARIFD and its 3 profiles

# Appetite-stimulating ghrelin is lower in ARFID compared to AN



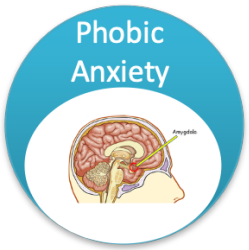

*N* = 74 females (ages 10-22yo) with AN or atypical AN(n = 28); low-weight ARFID (n = 16); or HC (n = 30)

AN compared to ARFID effect sizes range from *d* = 1.05 to *d* = 1.13


Note:
^ = *p<.05* comparison between AN and ARFID
* = *p <.05* comparison between AN and HC
+ = trend significance between AN and HC (p = .056)
** = *p* <.001 signifying significant difference in HC between each time point post meal and T0
** = *p* <.001 signifying significant difference in AN between each time point post meal and T0
** = P<.002 signifying significant difference in ARFID between each time point post meal and T0

Becker et al., in press, *Psychoneuroendocrinology*

# ARFID fear of aversive consequences profile is uniquely associated with anxiety disorders



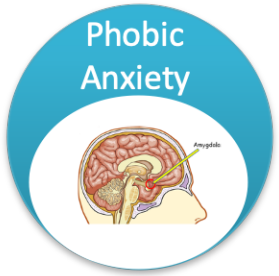

Anxiety, obsessive compulsive, and trauma-related disorders were the most common comorbid diagnosis in our ARFID sample

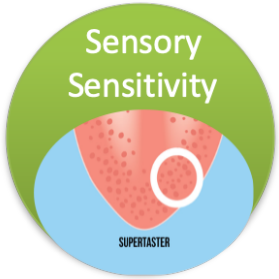
- 35% current
- 41% lifetime

**Fear of Aversive Consequences** — OR = 2.14, $p$ = .031 — **Anxiety, obsessive-compulsive, and trauma-related disorders**

Kambanis et al., 2020 *IJED*

# ARFID treatment should target these mechanisms

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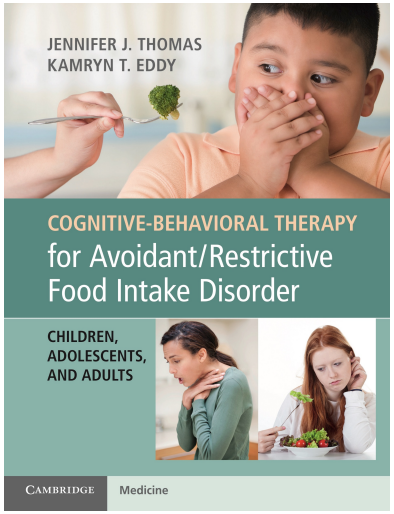
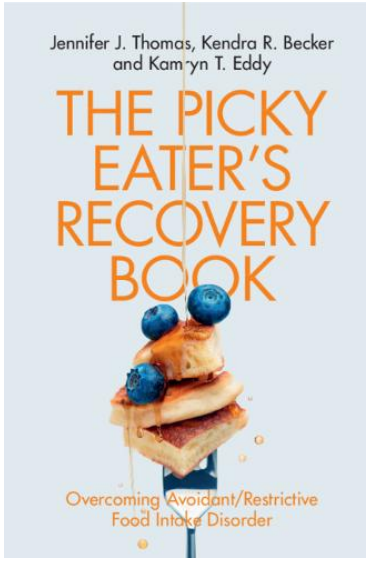
2. What is CBT-AR, and how can it be delivered via telehealth?

3. How can digital tools support CBT-AR?

# Cognitive-Behavioral Therapy for ARFID (CBT-AR)



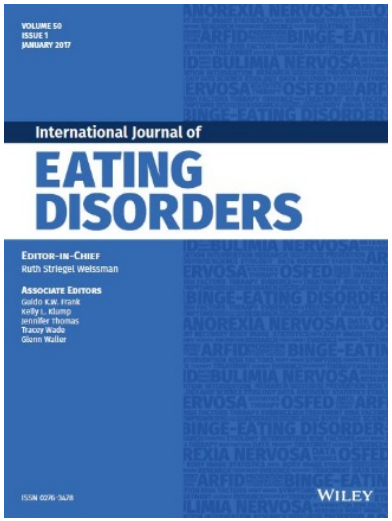




- Flexible, modular treatment for children, adolescents, and adults with ARFID that comprises ~20 sessions over 4 stages:
  1. Psychoeducation & early change
  2. Treatment planning
  3. Addressing maintaining mechanisms (exposure to new food- and eating-related situations)
  4. Relapse prevention

- Offered in 2 formats:
  1. Family-supported (patients < 16yo and/or underweight)
  2. Individual (patients ≥ 16yo, not underweight)

Thomas & Eddy, 2019

# Tips on delivering CBT for eating disorders via telehealth

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DOI: 10.1002/eat.23289

Check for updates

CLINICAL FORUM

International Journal of EATING DISORDERS WILEY

## Cognitive-behavioral therapy in the time of coronavirus: Clinician tips for working with eating disorders via telehealth when face-to-face meetings are not possible

Glenn Waller DPhil[1] | Matthew Pugh DClinPsy[2] | Sandra Mulkens PhD[3] | Elana Moore MSc[4] | Victoria A. Mountford DClinPsy[5] | Jacqueline Carter DPhil[6] | Amy Wicksteed DClinPsy[7] | Aryel Maharaj MEd[8] | Tracey D. Wade PhD[9] | Lucene Wisniewski PhD[10] | Nicholas R. Farrell PhD[11] | Bronwyn Raykos PhD[12] | Susanne Jorgensen MSc[13] | Jane Evans DClinPsy[14] | Jennifer J. Thomas PhD[15] | Ivana Osenk BSc[9] | Carolyn Paddock RD[16] | Brittany Bohrer MA[17] | Kristen Anderson MA[18] | Hannah Turner PhD[19] | Tom Hildebrandt PsyD[20] | Nikos Xanidis DClinPsy[21] | Vera Smit MA[22]

# 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

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Telehealth tip: In-person medical evaluation is crucial

# 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

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Telehealth tip:
Patient will need a scale at home

# CBT-AR: Stage 1

- Psychoeducation on ARFID
- Self- or parent-monitoring
- Regular eating (eating preferred foods at each meal/snack)
- Personalized formulation
- *If weight gain needed:*
  - **Set clear goal weight range** in collaboration with medical provider (and weigh patient at each session)
  - Increase volume of preferred foods before variety
  - Conduct in-session therapeutic meal to provide coaching
- *If weight gain is not needed:*
  - Make small changes in presentation of preferred foods and/or reintroduce recently dropped foods

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Telehealth tip: Screenshare any handouts you use

Telehealth tip: Use an app for self-monitoring

# 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.

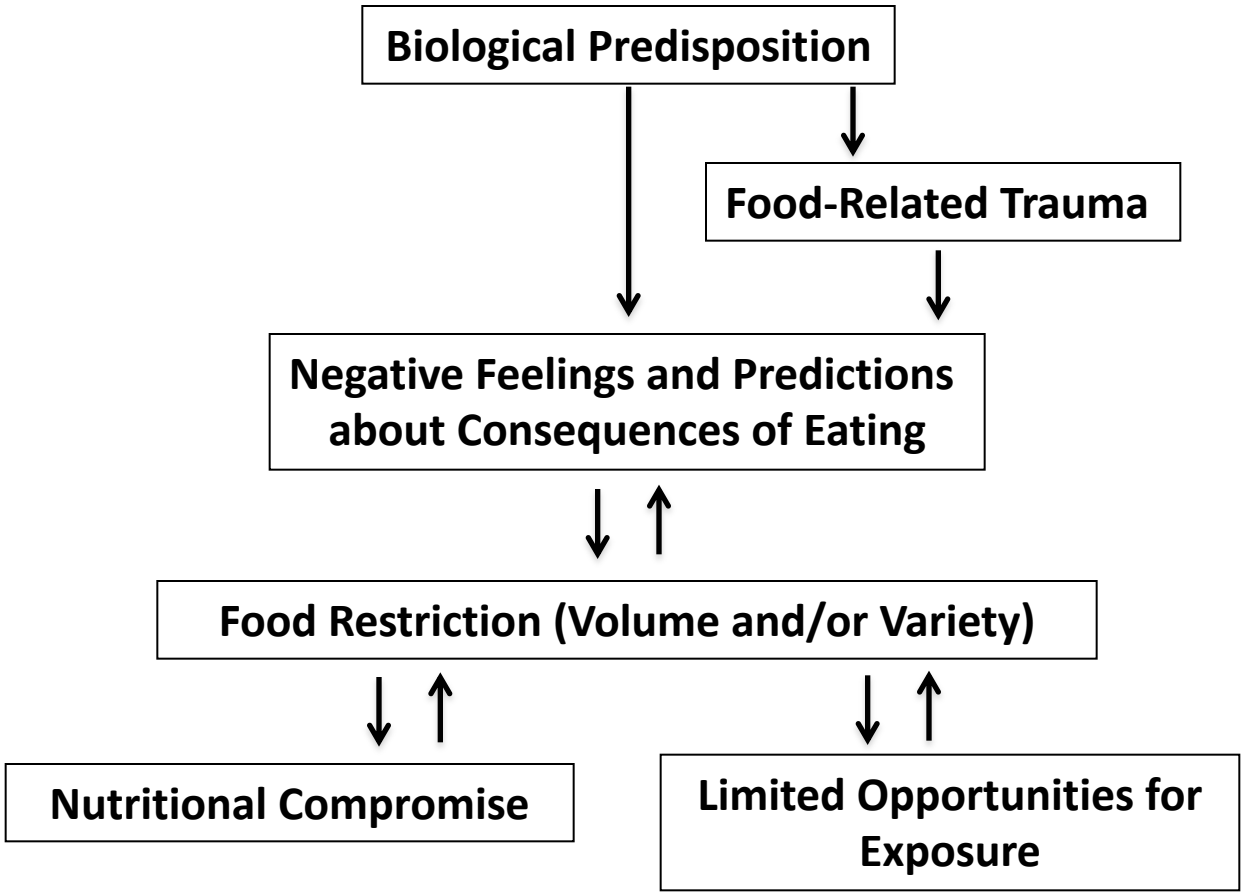
# Stage 1: First Change

- Rapid change is the expectation from day 1!

- *For patients who need to gain weight*:
  - Start adding 500 calories/day this week

- *For patients who do not need to gain weight*:
  - Small change in presentation of preferred food
  - Re-introduce previously dropped food
  - Rotate preferred meals
  - Eliminate minor safety behavior

# Stage 1: CBT Model




Thomas & Eddy, 2019, Cambridge University Press

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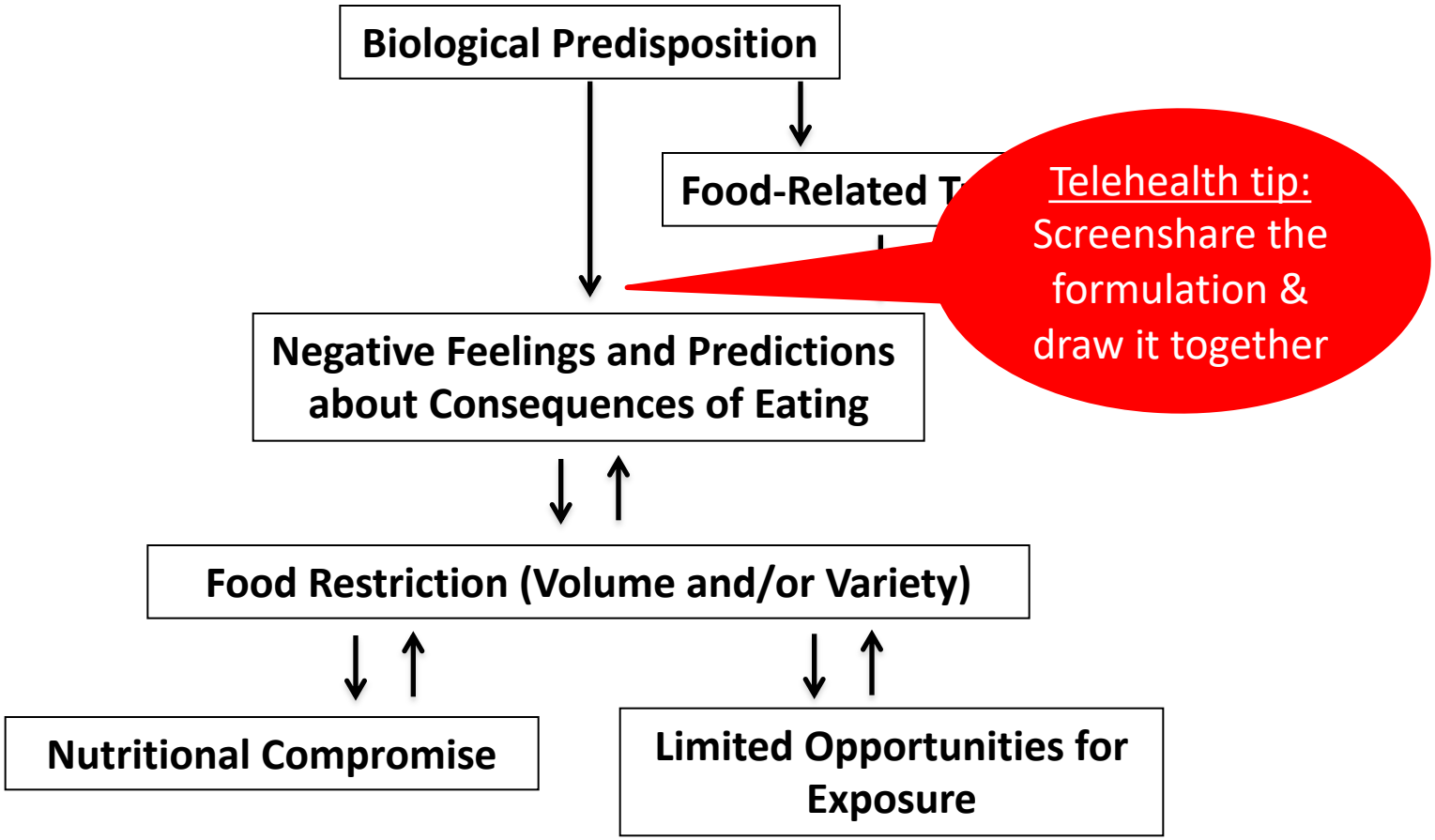


Thomas & Eddy, 2019, Cambridge University Press

# 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

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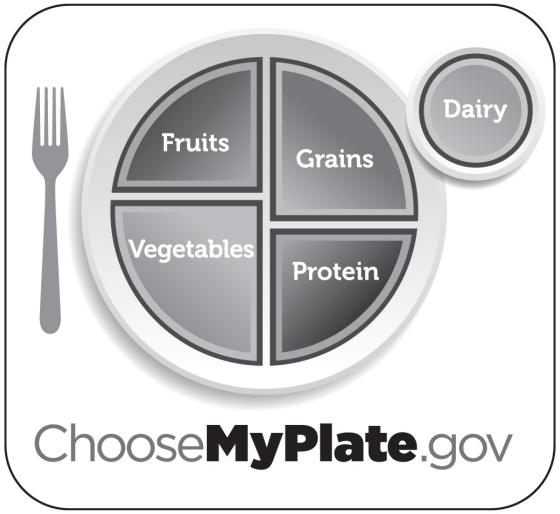
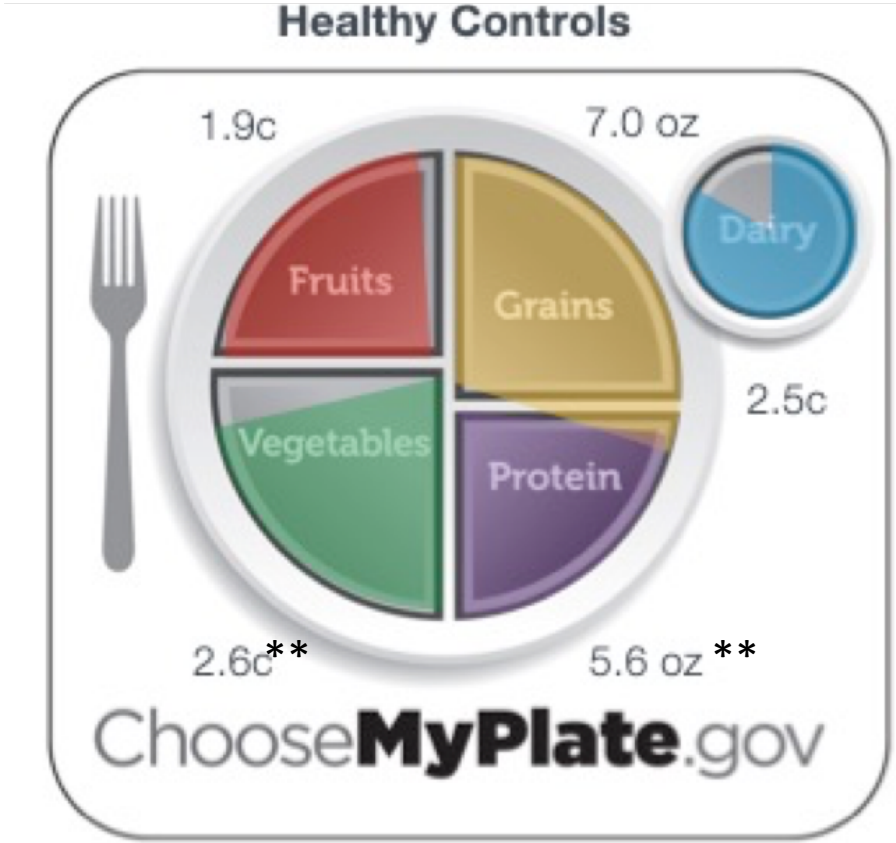
Telehealth tip:
Have patient or family put device right at the kitchen table

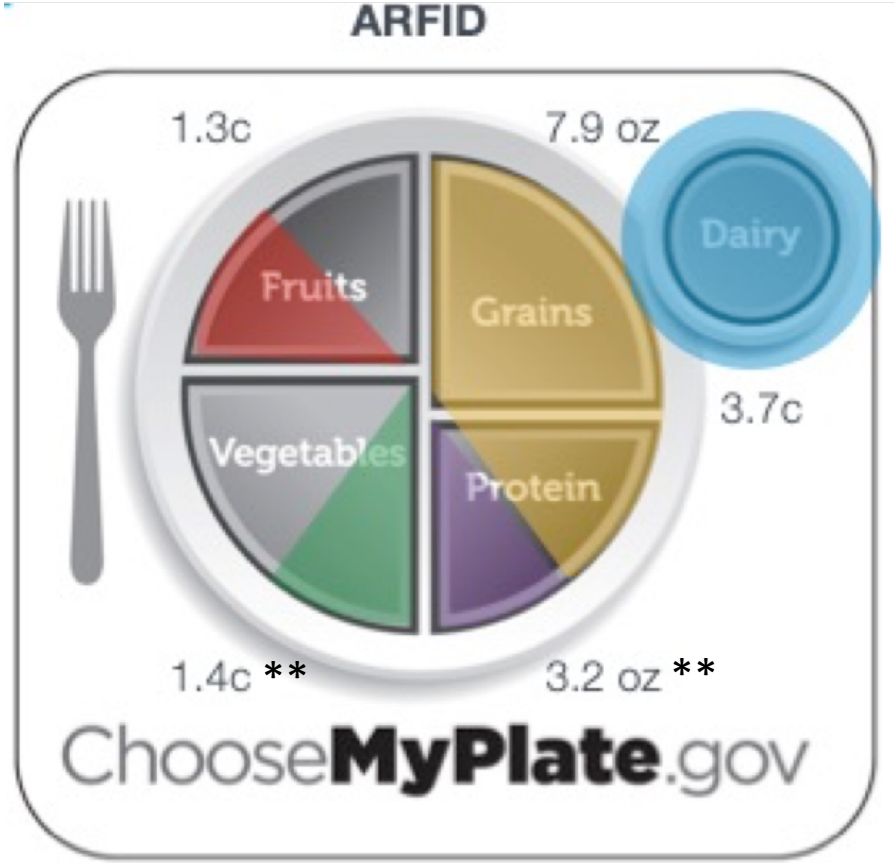
# CBT-AR Stage 2




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

# Stage 2: MyPlate Exercise




** p < .01

Harshman et al., 2019, *Nutrients*

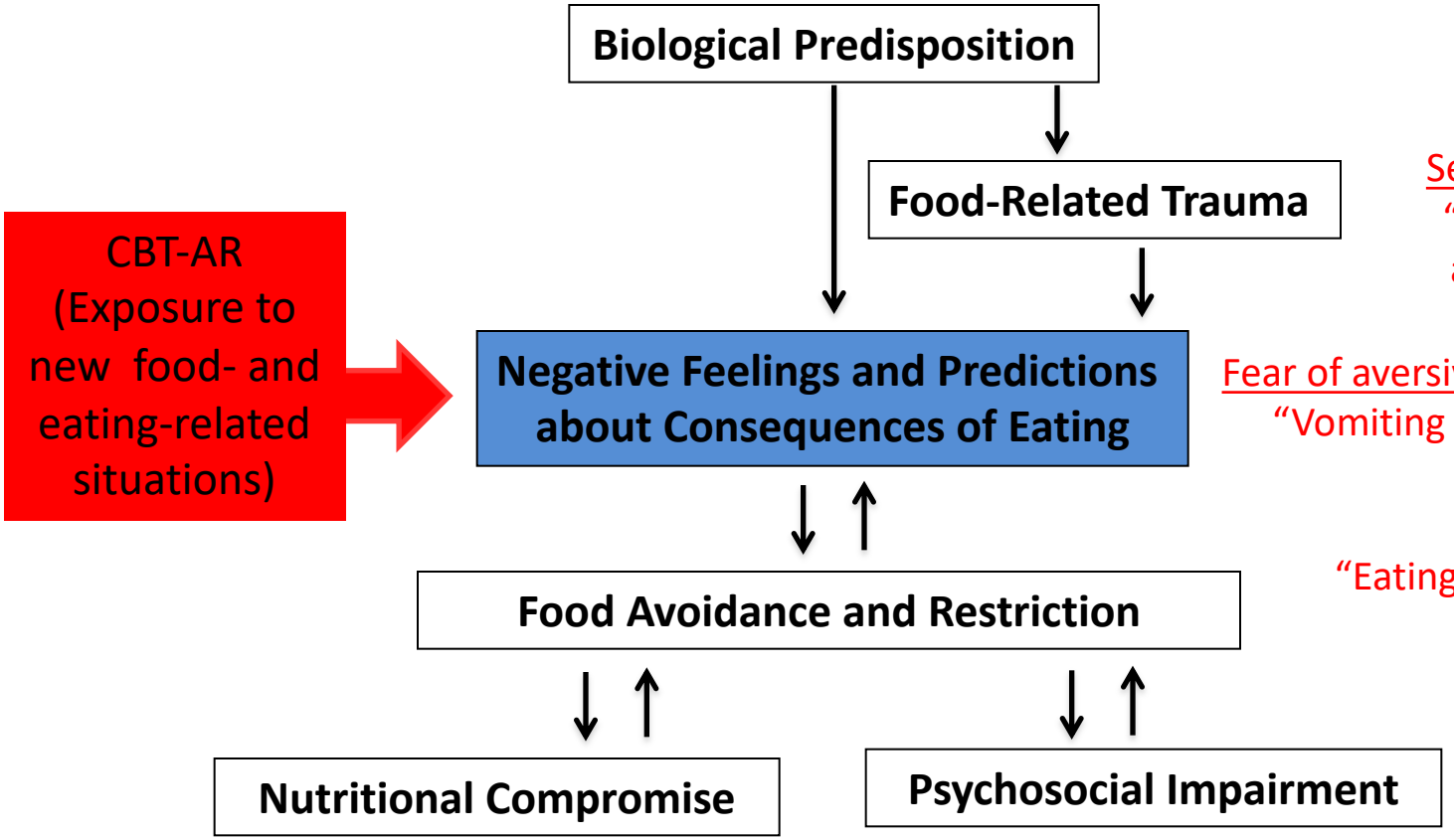
# Stage 2: Nutrition Deficiencies

| 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<br><br>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<br><br>Tip: Zinc is easier to absorb in animal sources |

# Stage 2: Building Blocks worksheet

| | Consistently eating? | Willing to learn about? | Number of tastes since starting CBT-AR? | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **FRUITS** | | | | | | | | | | | | |
| **100% Fruit juice** | | | | | | | | | | | | |
| • Apple juice | | | | | | | | | | | | |
| • Cranberry juice | | | | | | | | | | | | |
| • Grape juice | | | | | | | | | | | | |
| • Grapefruit juice | | | | | | | | | | | | |
| • Mango juice | | | | | | | | | | | | |
| • Orange juice | | | | | | | | | | | | |
| • Papaya juice | | | | | | | | | | | | |
| • Pineapple juice | | | | | | | | | | | | |
| • Pomegranate juice | | | | | | | | | | | | |
| • Prune juice | | | | | | | | | | | | |
| **Berries** | | | | | | | | | | | | |
| • Acai berries | | | | | | | | | | | | |
| • Blackberries | | | | | | | | | | | | |
| • Blueberries | | | | | | | | | | | | |

# Stage 3: Modularized Exposures




Sensory sensitivity:
"Some new foods actually taste OK"

Fear of aversive consequences:
"Vomiting is pretty unlikely"

Lack of interest:
"Eating can be pleasant"

Thomas & Eddy, 2019

# 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)? |

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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.

Telehealth tip:
If patient wants to try a new food with high allergy potential (e.g., peanuts) check with PCP first

## The Five Steps

#1 What does it look like (e.g., green, round)?

#2 What does it feel like (e.g., smooth, rough)?

#3 What does it smell like (e.g., strong, bitter)?

What taste like (e.g., sweet, salty)?

(e.g., chewy, soft)?

Telehealth tip:
Impossible to "forget" items for tasting in at-home therapy. Send them to fridge/kitchen!

# 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.

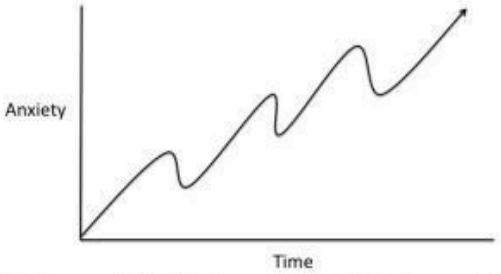
# Fear of Aversive Consequences Module

*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

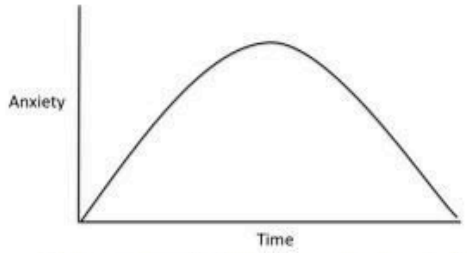
# Stage 3: Fear of Aversive Consequences

## 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



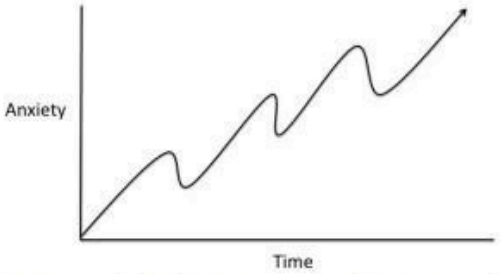

If you try a novel food, your anxiety will increase at first, but it will ultimately decrease as you keep practicing.

**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!**

# Stage 3: Fear of Aversive Consequences

Telehealth tip: Screenshare any handouts you use

## Avoidance Increases Anxiety

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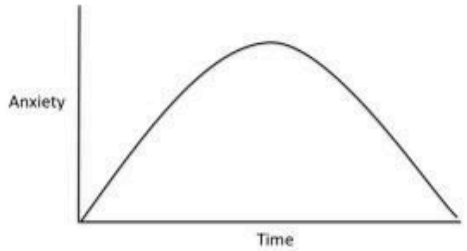
## Exposure Decreases Anxiety




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!**

# Stage 3: Example in-session exposure for ARFID fear of aversive consequences

<u>What are you afraid will happen?</u>
"If I eat pizza, I will vomit."

<u>How certain are you that you will vomit?</u>
90%

<u>What is your SUDS rating (0-100)?</u>
50

*Eat pizza in session*

<u>What actually happened?</u>
"I felt nauseous but didn't actually vomit."

<u>How certain are you that you will vomit next time you eat pizza?</u>
50%

<u>What is your SUDS rating (0-100)?</u>
30

# Stage 3: Example in-session exposure for ARFID fear of aversive co[illegible]ces

What are you afraid will happen?
"If I eat pizza, I will vomit."

How certain are you that you will vomit?
90%

What is your SUDS rating (0-100)?
50

*Eat pizza in ses[illegible]*

[illegible]that [illegible] next time you eat pizza?
50%

What is your SUDS rating (0-100)?
30

Telehealth tip:
At-home therapy is a great opportunity to generalize exposures to home setting

# 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

# 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

# Emerging evidence base for CBT-AR

- What is the current evidence for CBT-AR?
  a. Case reports[1,2,3,4]
  b. Two open trials[5,6]

- Both studies provided support for the feasibility, acceptability, and proof-of-concept of CBT-AR across the lifespan

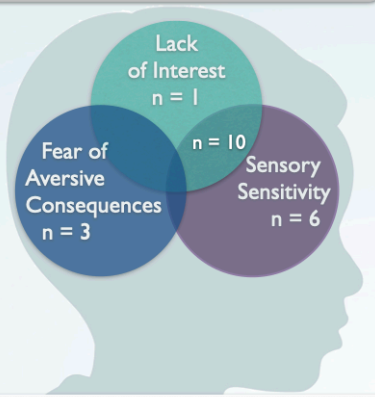
[1]Thomas et al., 2017 *NEJM;* [2]Thomas & Eddy, 2019 manual; [3]Becker et al., 2020 *JAACAP*; Murray et al., in prep; [5]Thomas et al., 2020 *IJED*; [6]Thomas et al., in press

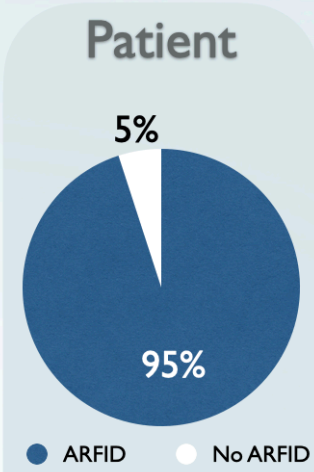
# Evidence of CBT-AR for children

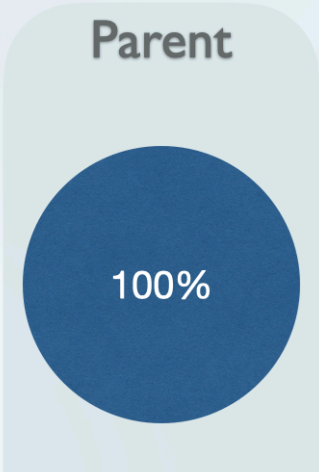
## Cognitive Behavioral Therapy for ARFID (CBT-AR)

**Sample Characteristics**

- *n* = 20
- 10-17 years old
- 45% female

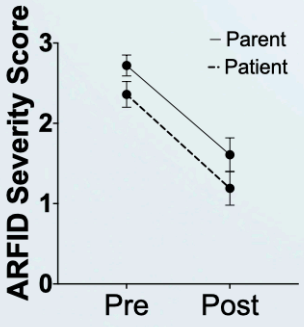


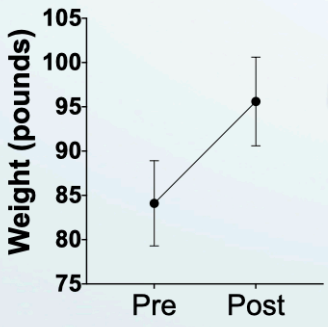



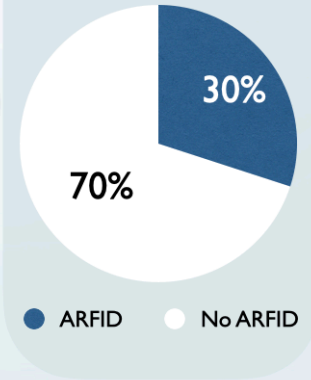

ARFID Diagnosis Pre-Treatment

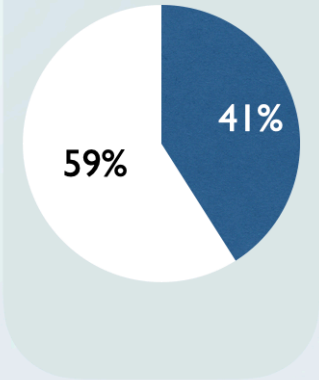
**CBT-AR shows feasibility, acceptability, and proof-of-concept for children and adolescents with ARFID (20-30 sessions)**








ARFID Diagnosis Post-Treatment

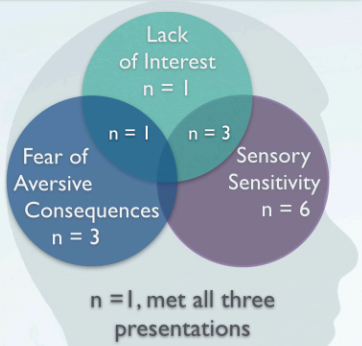
Thomas et al., 2020, *IJED*

# Evidence for CBT-AR in adults

## Cognitive Behavioral Therapy for ARFID (CBT-AR)

### Sample Characteristics

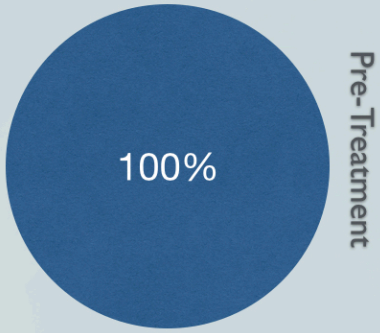
- *n* = 15
- 18-55 years old
- 67% female



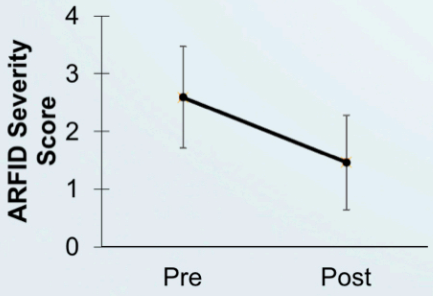

### Duration of Illness

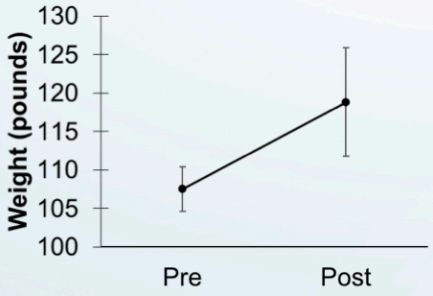
17 years

### ARFID Diagnosis

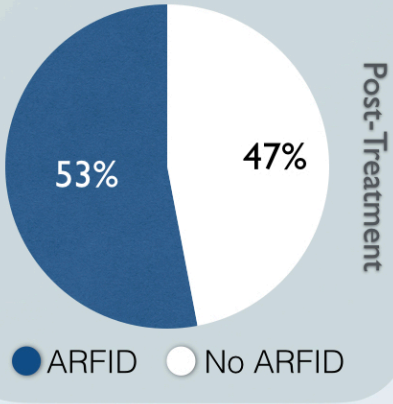



**CBT-AR shows feasibility, acceptability, and proof-of-concept for adults with ARFID (20-30 sessions)**








Thomas et al., in press, *JBCT*

# Agenda

1. How is ARFID assessed?

2. What is CBT-AR, and how can it be delivered via telehealth?

3. How can digital tools support CBT-AR delivery?

# Learn more about ARFID

**Questions?**

- CBT-AR: jjthomas@mgh.harvard.edu
- Recovery Record: elissa@recoveryrecord.com

**Books about CBT-AR**

- *Cognitive-Behavioral Therapy for Avoidant/Restrictive Food Intake Disorder: Children, Adolescents, & Adults (Thomas & Eddy, 2019)*
- *The Picky Eater's Recovery Book: Overcoming Avoidant/Restrictive Food Intake Disorder (Thomas, Becker, & Eddy, 2021)*

**Download CBT-AR patient/family workbook (free)**

- https://bit.ly/2WvDdy6

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

- https://bit.ly/2vQD1hq
- Obtain PARDI-AR-Q: rachel.bryant-waugh@slam.nhs.uk

**Recovery Record**

- https://www.recoveryrecord.com