MASSACHUSETTS GENERAL HOSPITAL
PSYCHIATRY ACADEMY

Child and Adolescent Eating Disorders: Diagnoses and Treatment Innovations

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Disclosures

I have the following relevant financial relationship with a commercial interest to disclose:

- Cambridge University Press

Cognitive Behavioral Therapy for Avoidant/Restrictive Food Intake Disorder (CBT-AR): Children, Adolescents, and Adults (2019)

and

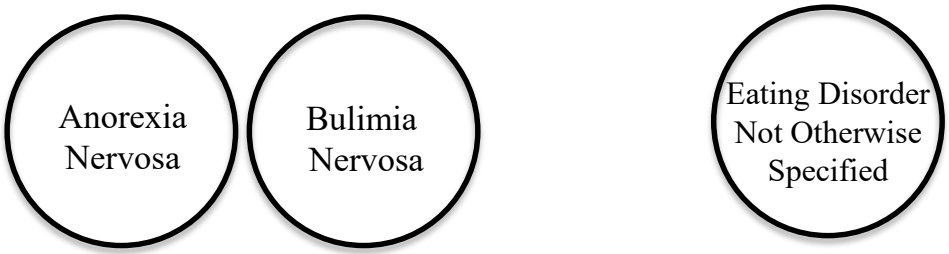
Picky Eating Recovery Book: Overcoming Avoidant/Restrictive Food Intake Disorder (in press)

Agenda

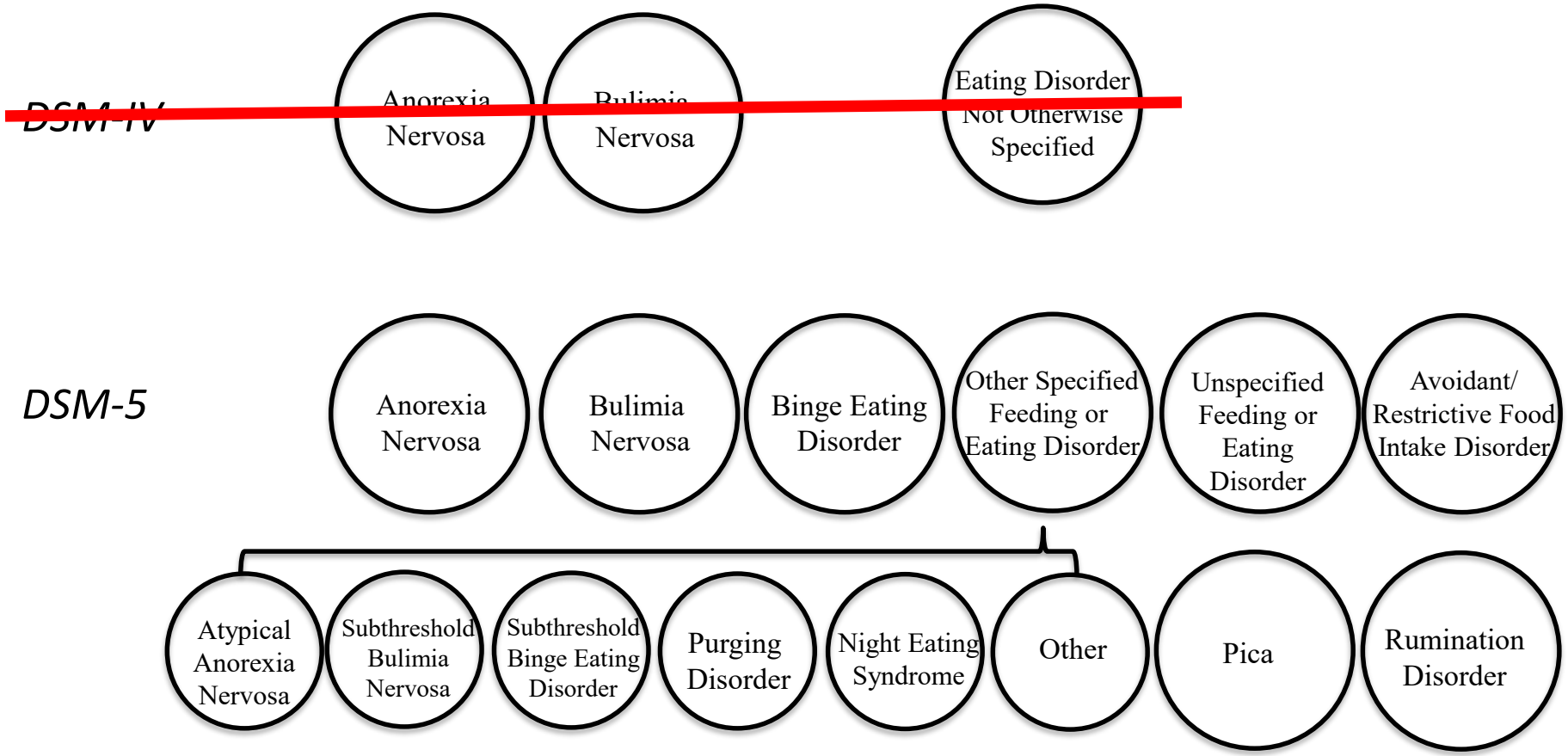
1. DSM-5 eating disorders in youth
2. Cognitive-behavioral interventions for eating disorders in youth
   - Family-based treatment (FBT)
   - Cognitive-behavioral therapy for ARFID (CBT-AR)

DSM-IV (1994)

DSM-IV



DSM-IV (1994) → *DSM-5* (2013)



Lifetime Prevalence of Eating Disorders

Adolescents		
	Males	Females
Anorexia nervosa	.3	.3
Bulimia nervosa	.5	1.3
Binge eating disorder	.8	2.3

Adults		
	Males	Females
Anorexia nervosa	.3	.9
Bulimia nervosa	.5	1.5
Binge eating disorder	2.0	3.5

Hudson et al., 2007; Swanson et al., 2011

Common presentations in youth

Anorexia nervosa

Avoidant/restrictive food intake disorder (ARFID)

DSM-5 Diagnostic Criteria

Anorexia nervosa

A. Low body weight

B. Fat phobia OR weight loss behaviors

C. Body image disturbance

- Subtypes: Restricting or Binge/purge
- Specifiers (by BMI):
  - Mild, moderate, severe, extreme
  - Partial or full remission

ARFID

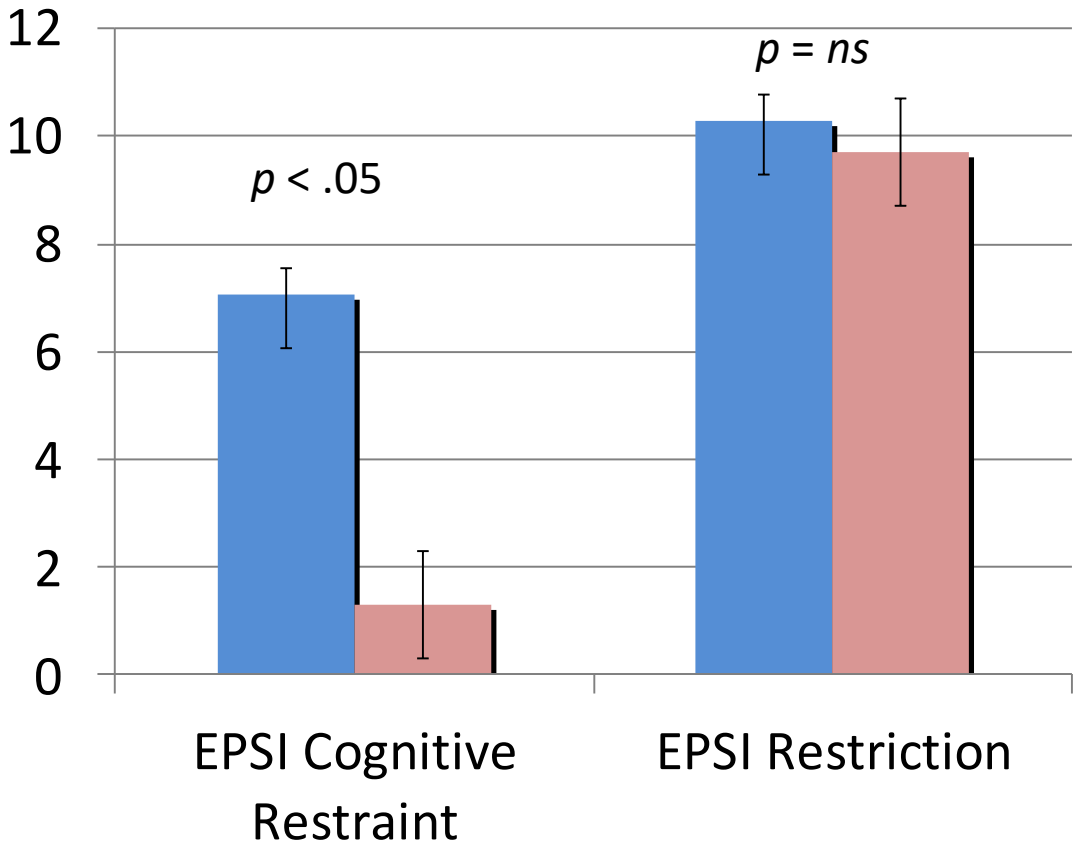
A. Failure to meet nutritional needs:
   1. Weight loss
   2. Nutritional deficiency
   3. Dependence on enteral or oral supplements
   4. Psychosocial impairment

B. Not due to lack of food

C. No body image disturbance

D. Not better explained medically

Although both involve restrictive eating, ARFID differs from AN



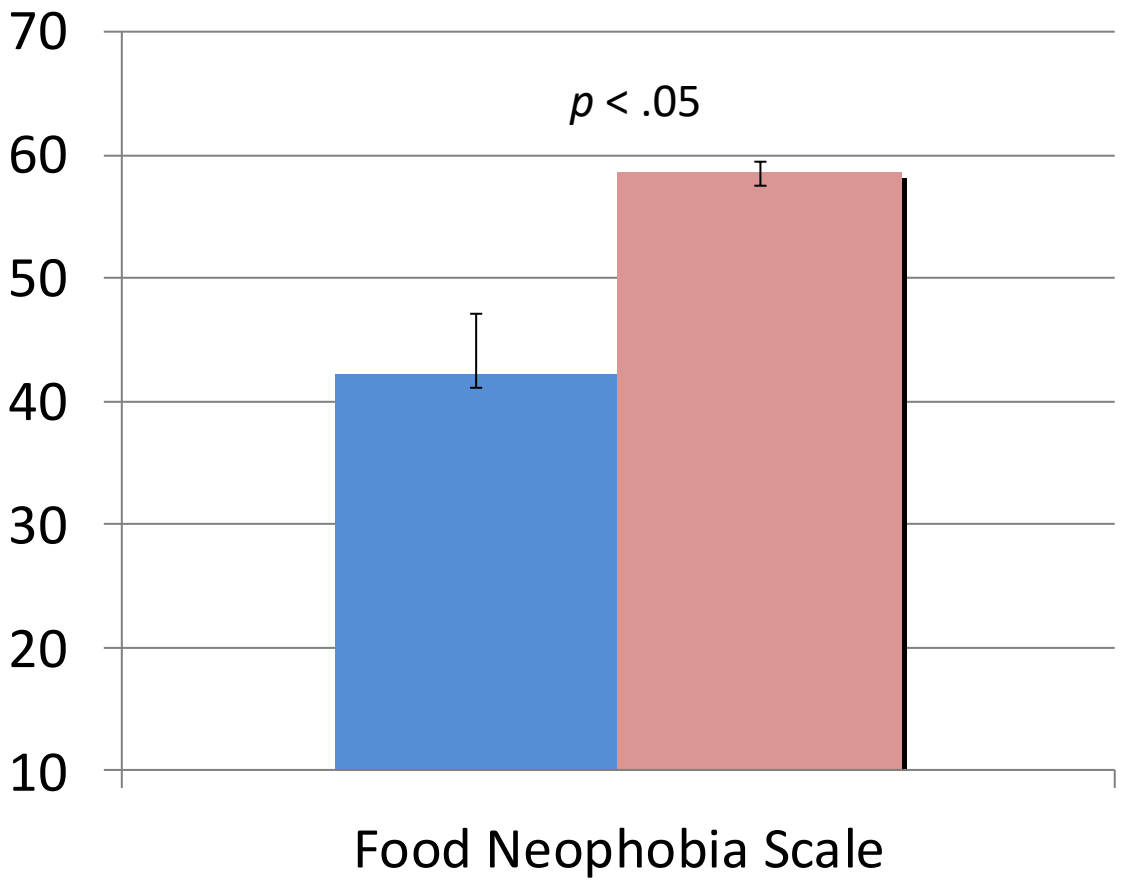
N = 123 male and female patients (ages 10-78yo) with restrictive eating disorders at the MGH EDCRP

AN

ARFID

Becker et al., 2016, ICED

Although both involve restrictive eating, ARFID differs from AN



N = 123 male and female patients (ages 10-78yo) with restrictive eating disorders at the MGH EDCRP

Becker et al., in preparation

Both Eating Disorders are Characterized by Restrictive Eating

- But, in anorexia nervosa, restriction is motivated by drive for thinness and fear of fatness, whereas in ARFID, restriction is *not due to shape and weight concerns*

SCOFF Questionnaire: "Yes" to 2+ indicates likely ED (AN Screen)

Do you make yourself Sick because you feel uncomfortably full?

Do you worry you have lost Control over how much you eat?

Have you recently lost Over 15 pounds in a 3-month period?

Do believe yourself to be Fat when other say you are too thin?

Would you say that Food dominates your life?

Morgan et al., 2009

NIAS (Nine Item ARFID Screen): "Yes" to 2+ indicates likely ED

1. I am a picky eater
2. I dislike most of the foods that other people eat
3. The list of foods that I like and will eat is shorter than the list of foods I won't eat
4. I am not very interested in eating; I seem to have a smaller appetite than other people
5. I have to push myself to eat regular meals throughout the day, or to eat a large enough amount of food at meals
6. Even when I am eating a food I really like, it is hard for me to eat a large enough volume at meals
7. I avoid or put off eating because I am afraid of GI discomfort, choking, or vomiting
8. I restrict myself to certain foods because I am afraid that other foods will cause GI discomfort, choking, or vomiting
9. I eat small portions because I am afraid of GI discomfort, choking, or vomiting.

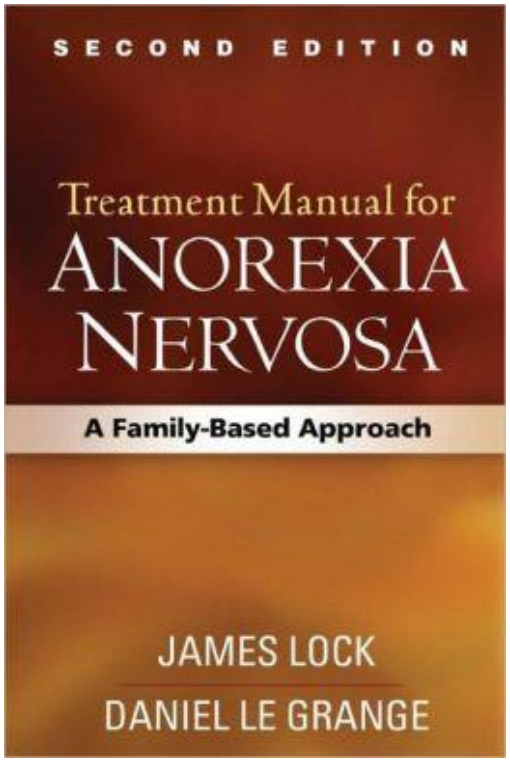
Zickgraf & Ellis, 2018

Unifying Principles in Treatment of Child and Adolescent Eating Disorders

- cBt (emphasis on the Behavior change)
- Parent involvement, especially when weight is low
- Short-term, structured intervention
  - Family-based treatment for AN
  - Family-assisted or individual CBT-AR for ARFID

Family-Based Treatment for Adolescents

- Basic principles
  - AN is developmental setback
  - Parents must step in to interrupt symptoms that patient cannot control
- Three phases
  1. Parents re-feed child
  2. Child eats independently
  3. Return to normal development



FBT Manual

Lock et al., 2001

FBT Phase I:
Parents re-feed child

- Overarching goal: Symptom interruption
- Absolve parents of self-blame
- Parents and patient eat all meals together as a family
- Focus on weight gain and d/c binge/purge symptoms
- Separate patient from ED

Parents encourage "one more bite"

Parents choose energy-dense foods

Lock & Le Grange, 2015

FBT Phase II:
Child Eats Independently

Patient may eat lunch at school

Patient might return to activities

- Overarching goal: facilitate adolescent's managing of their own eating as long as it's no longer ED-motivated
- Patient gradually begins to eat meals away from parents
- Therapist tries to differentiate patient's identity from the ED
- Family explores how ED has affected family relationships

Lock & Le Grange, 2015

FBT Phase III:
Return to Normal Development

- Overarching goal: family management of adolescence
- Patient eats most meals on his or her own and selects foods
- Therapist supports patient's separation from her parents as age-appropriate
- Family remains vigilant for signs of relapse

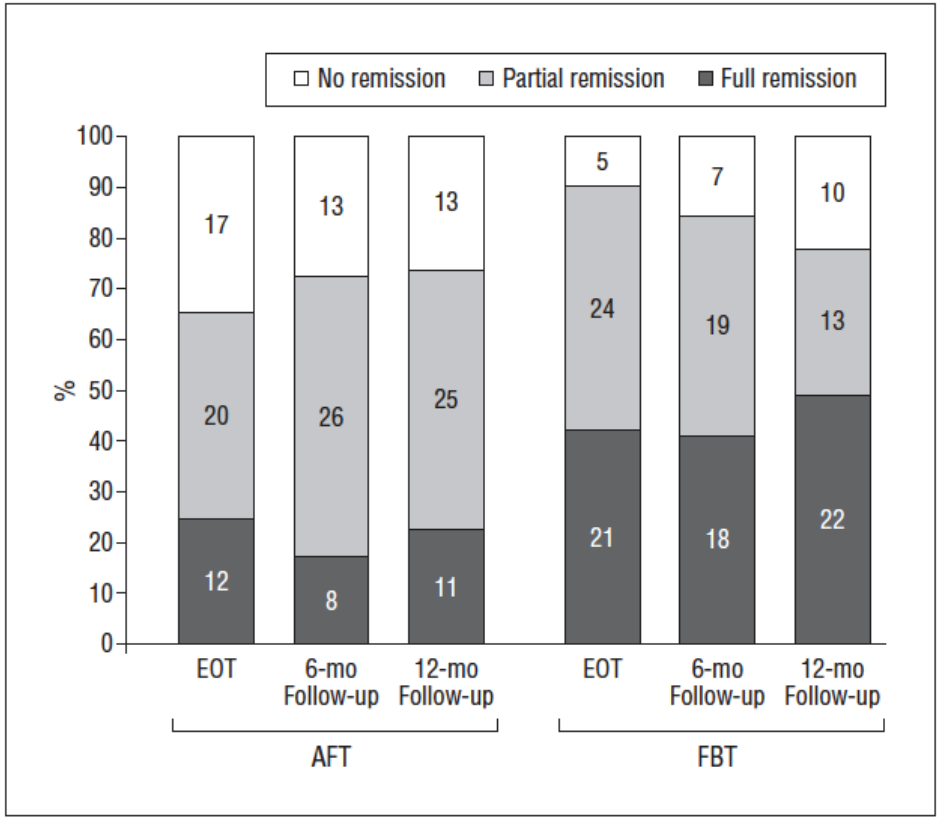
Increase emphasis on socializing

Family prepares for separation

Lock & Le Grange, 2015

How Well Does FBT for AN Work?

N = 121 youth (ages 12-18 yo)
FBT vs. Adolescent-focused Therapy (AFT)
Remitted: 41.8% FBT vs. 21.6% AFT

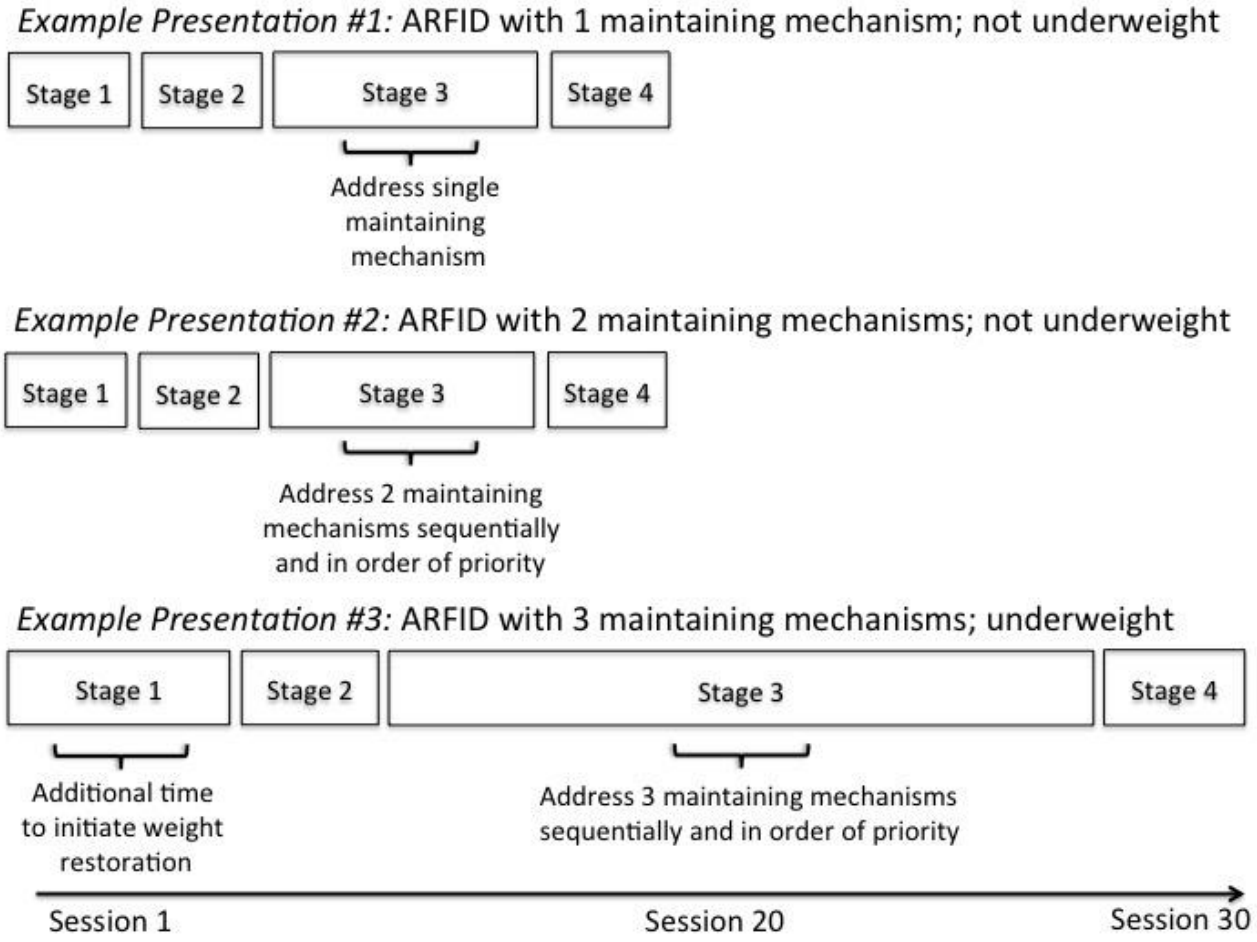


Lock et al., *Archives of General Psychiatry, 2010*

4 Stages of CBT-AR

1. Psychoeducation and regular eating
2. Treatment planning
3. Address maintaining mechanisms in each ARFID domain
    a. Sensory sensitivity
    b. Fear of aversive consequences
    c. Lack of interest in food or eating
4. Relapse prevention

Tailoring CBT-AR to the Patient



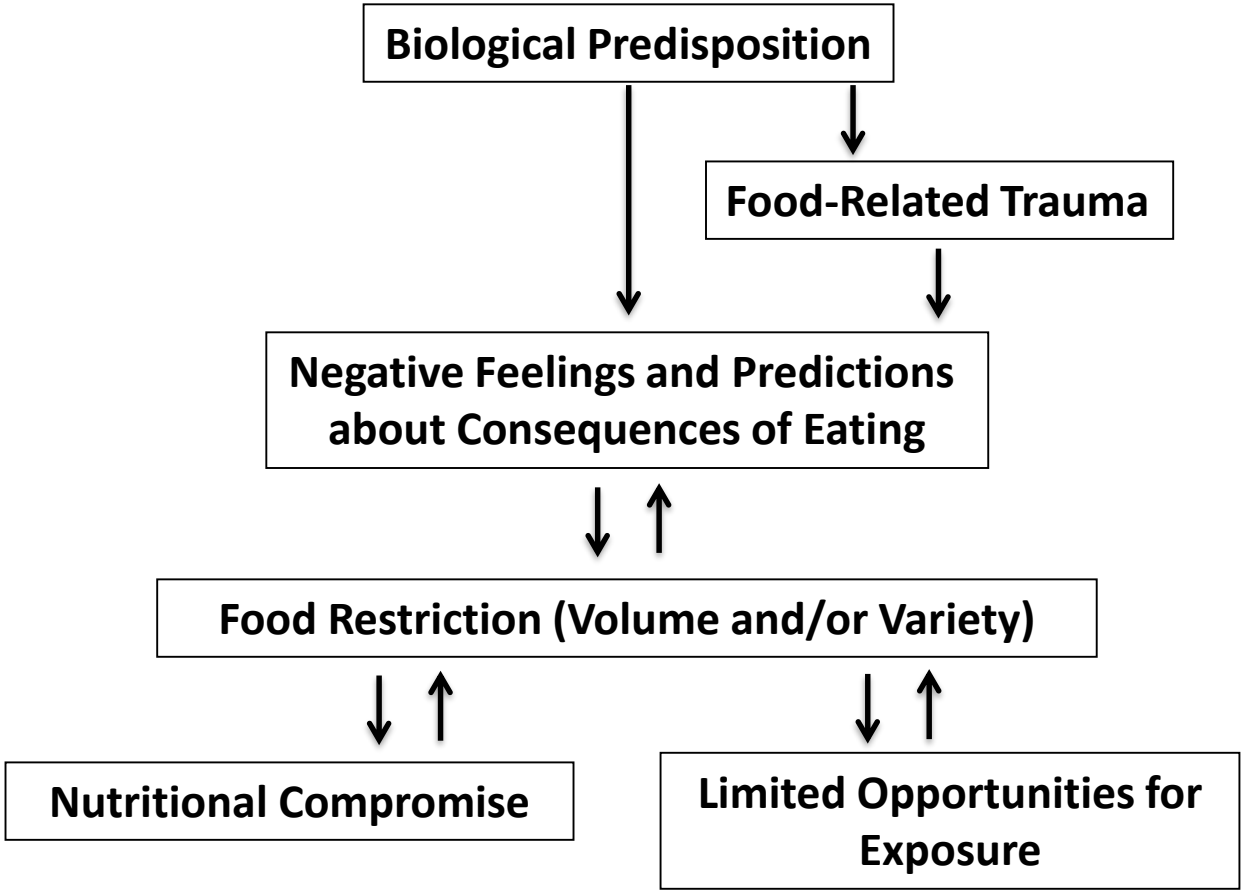
Two formats

- 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

CBT-AR: Stage 1

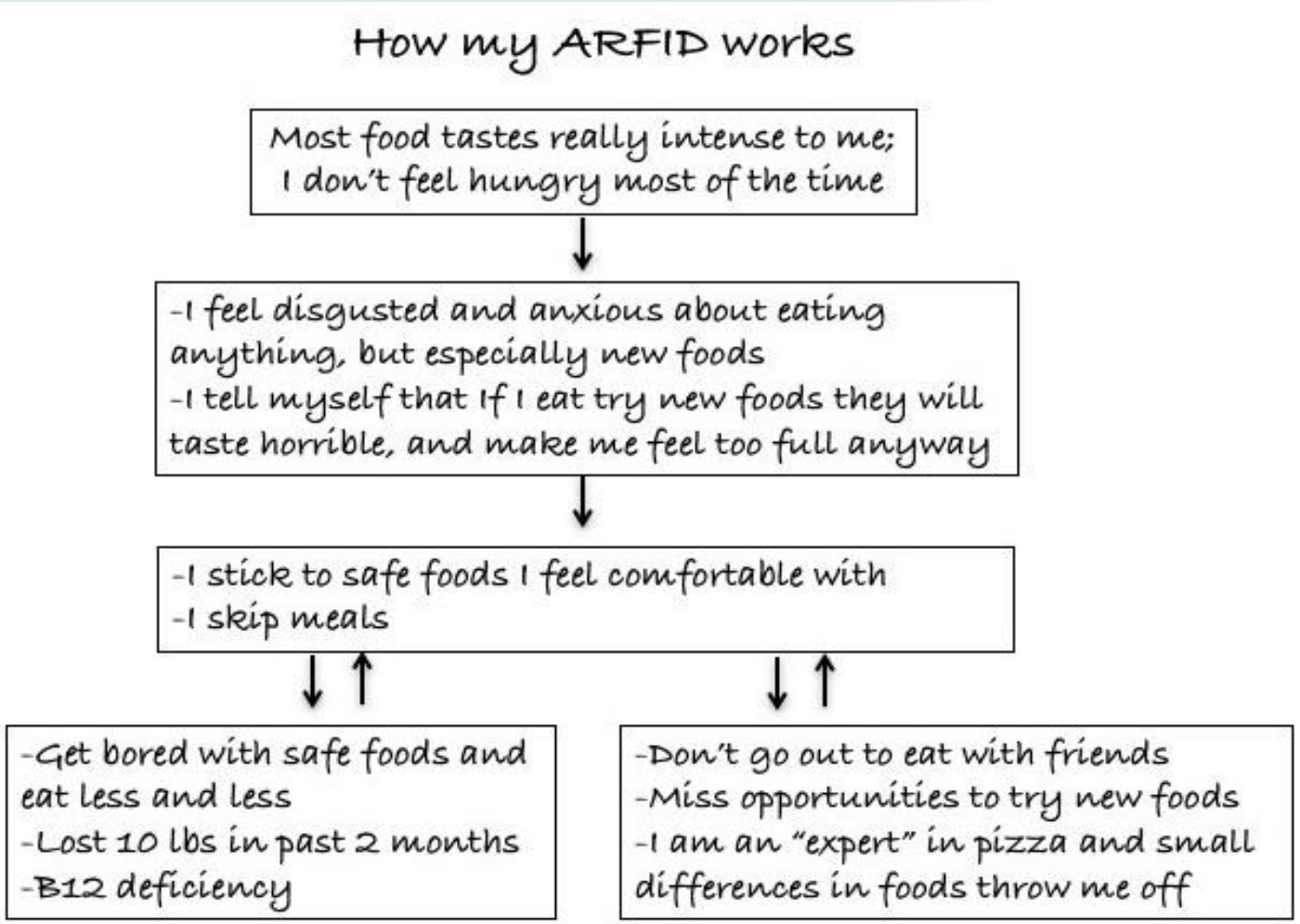
- Psychoeducation on ARFID
- Self- or parent-monitoring
- Regular eating
- Personalized formulation
- *If underweight:*
  - Begin to restore weight by increasing volume of preferred foods
  - Conduct in-session therapeutic meal to provide coaching
- *If not underweight:*
  - Make small changes in presentation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

Stage 1: CBT Model



Thomas & Eddy, 2019,
Cambridge University Press

Stage 1: CBT Model



Thomas & Eddy, 2019, Cambridge University Press

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

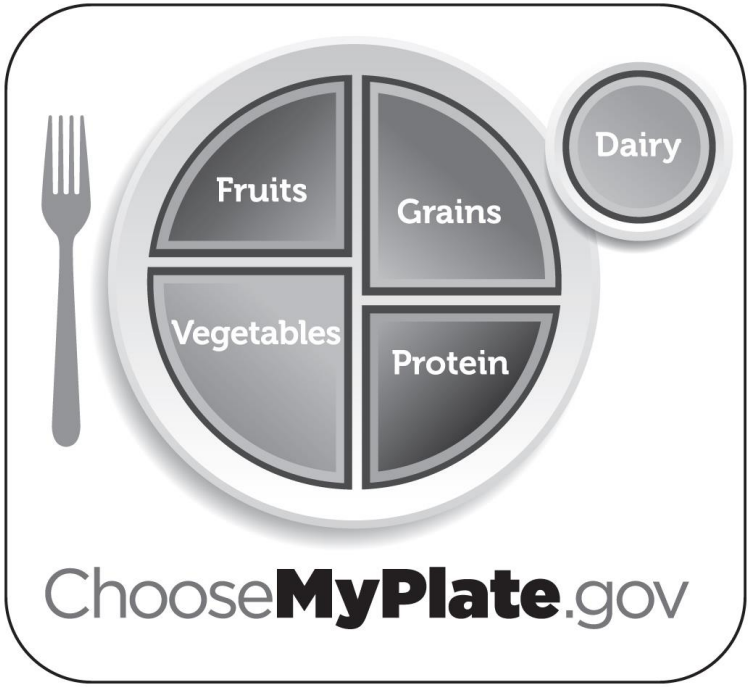
GOOD NEWS!

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

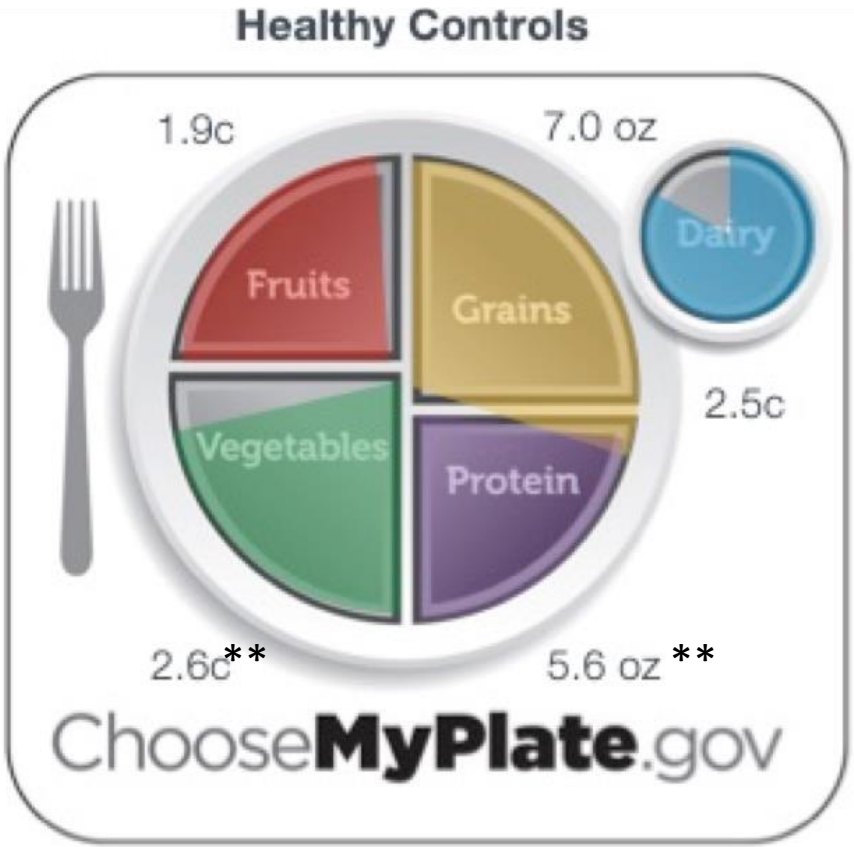
Thomas, J.J. and Eddy, K.T. (2018). *Cognitive-Behavioral Therapy for Avoidant/Restrictive Food Intake Disorder: Children, Adolescents, & Adults.* Cambridge: Cambridge University Press.

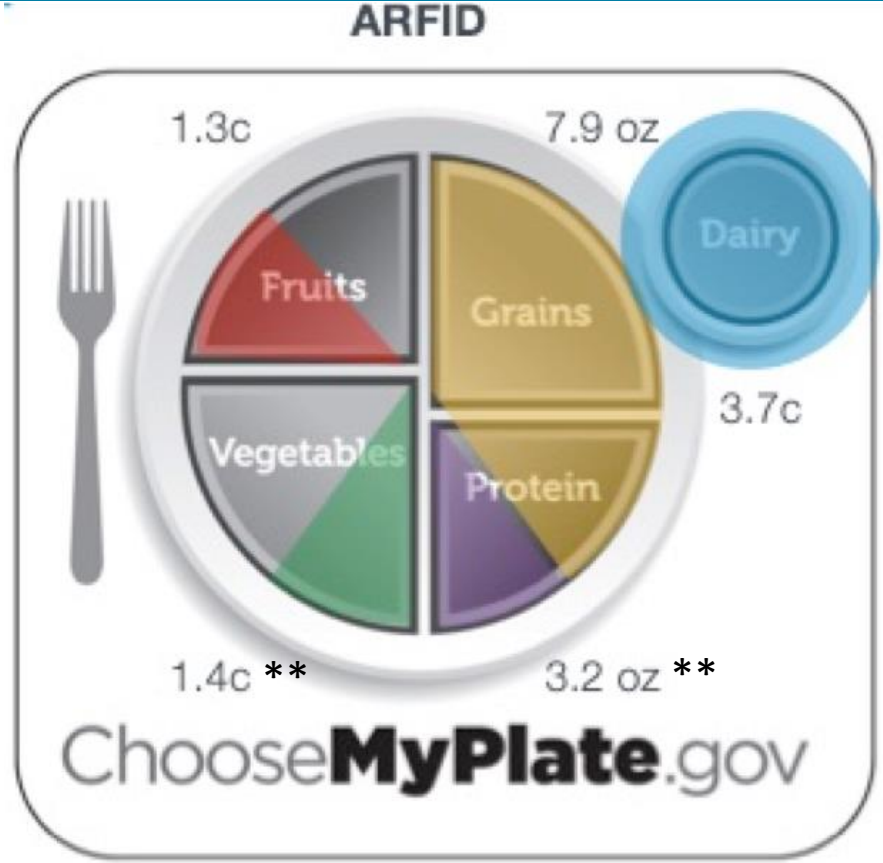
CBT-AR: Stage 2

- Identify foods that could correct nutrition deficiencies
- Select new foods to learn about in Stage 3



ARFID eating patterns compared to healthy controls





Harshman et al., 2020

** p < .01

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 met 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)?

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

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

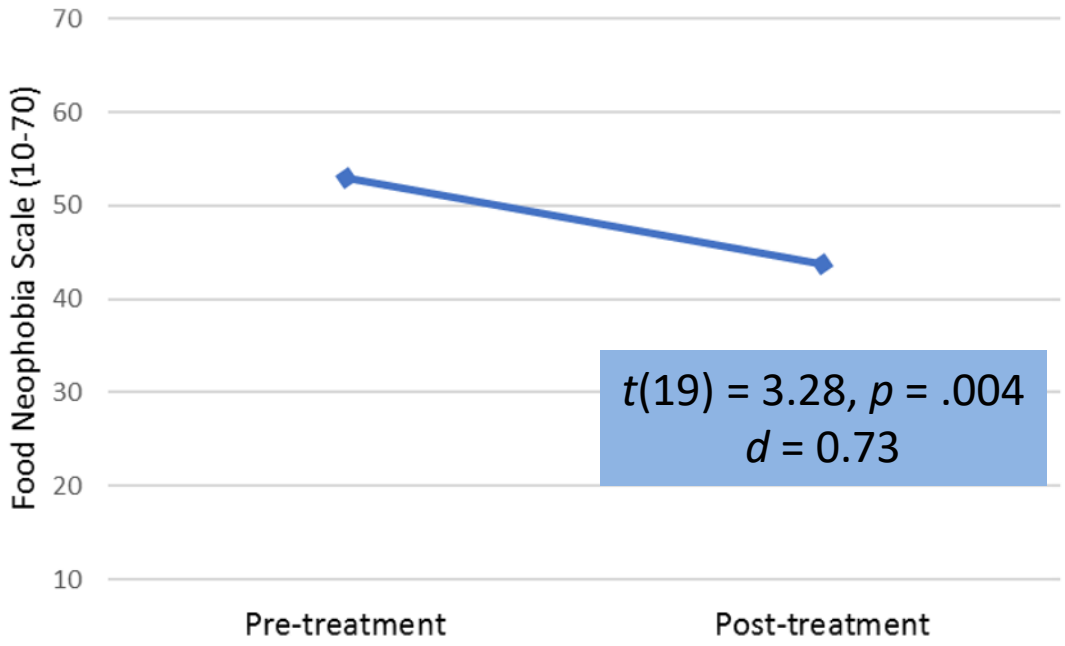
CBT-AR: Stage 4

- 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

How Well Does CBT-AR Work?

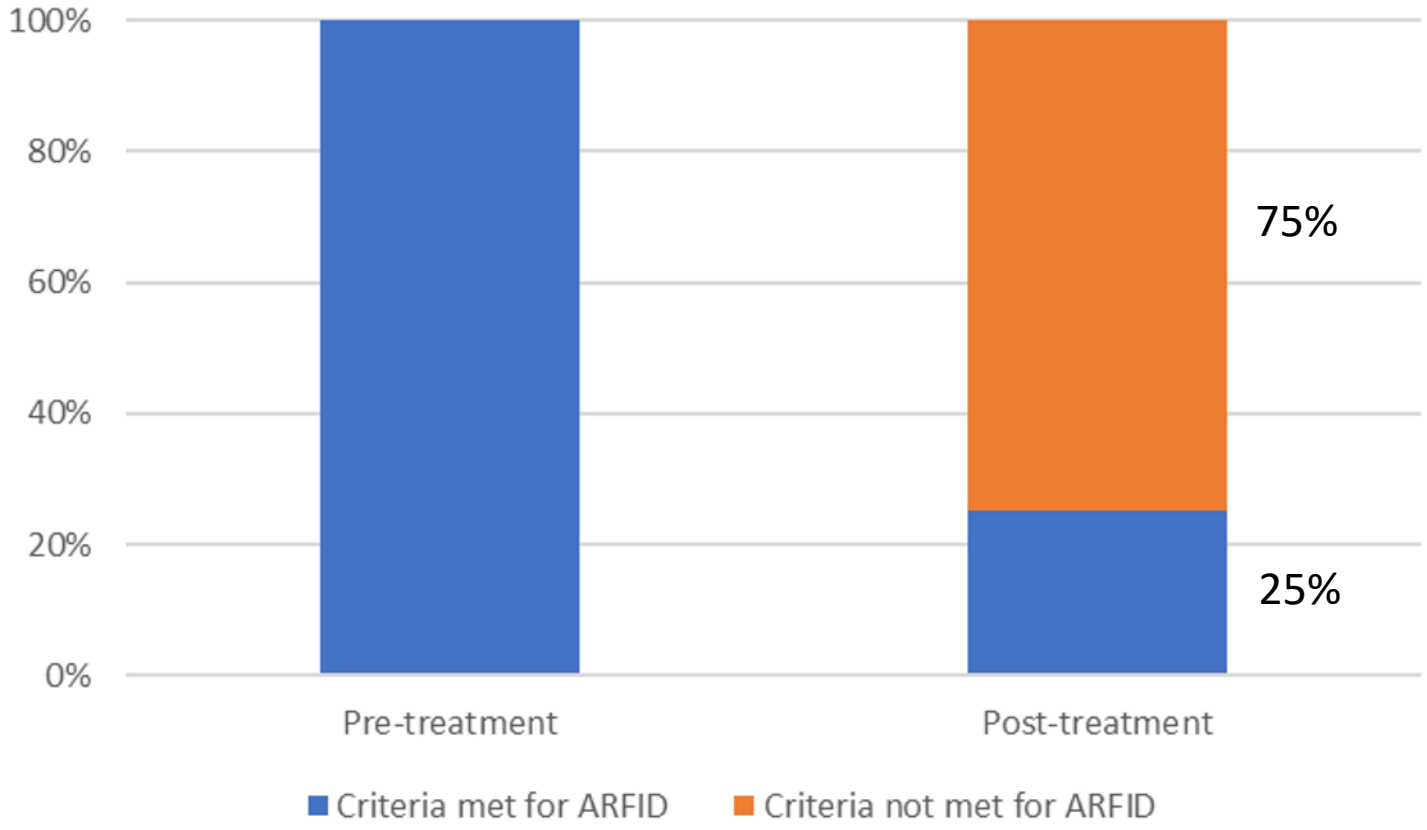
- Patient no longer meets criteria for ARFID and/or symptom severity has decreased
- Patient eats and incorporates several foods in 5 food groups
- Patient's growth (height and weight) has increased to that expected
- Nutritional status is replete
- Patient no longer experiences clinically impairing psychosocial consequences

Efficacy: Food Neophobia decreased and many new foods incorporated



Number of New Foods Incorporated:
M = 16.7
SD = 12.1

Efficacy: Most patients did not meet criteria for ARFID post-tx (via PARDI)



How Do Patients Define Recovery?

"…food and my body are only parts of who I am. Neither defines me anymore."

"My life became more full, and there just wasn't room on my plate for the eating disorder anymore."

To Refer to our Studies: REACT: Restrictive/eating and Athletes Cognition Trial

- 120 females ages 14-30 years old
- Anorexia nervosa, atypical anorexia, athletes with disordered eating, purging disorder
- Randomized controlled clinical trial of Estrogen patch vs. placebo for 12 weeks
- Screen visit, plus 3 study visits (baseline, 8-weeks, and 12-weeks)
- Interviews, fMRI, cognitive games, blood draw
- $500
- Call: Meghan Slattery (617) 643-0267

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