



Welcome to VMAP ECHO Deeper Dive

Feeding Challenges

24 August 2023

Our session will begin promptly at 12pm

*Please enter your name in the chat box;
include any guests attending with you*

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Important information...

Patient-provider relationship:
Project ECHO case consultations do not create or otherwise establish a provider-patient relationship between any VMAP clinician and any patient whose case is being presented in a Project ECHO setting.

Video recording:
For educational and quality improvement purposes, we will be recording this session.
By participating in this clinic you are consenting to be recorded. We appreciate and value your participation.

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Important information...

Respect Private Health Information

To protect patient privacy, please only display or say information that doesn't identify a patient or that cannot be linked to a patient.

- Names: Please do not refer to a patient's first/middle/last name or use any initials, etc.
- Locations: Please do not identify a patient's county, city or town.
- Dates: Please do not use any dates (dob) that are linked to a patient. Instead, please use the patient's age.
- Other common identifiers: Patient's family members, friends, co-workers, phone numbers, e-mails, occupation, place of employment

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Today's agenda

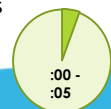
Let us know you're here!

Please enter your name + any guests into the ZOOM "chat box" so we have a record of your attendance


Agenda:

:00 - :05	Welcome + introductions
:05 - :30	Didactic: Feeding Challenges
:30 - :55	Case presentation, discussion + recommendations
:55 - :00	Wrap-up

Our next session is scheduled for:
Thurs., Sept. 28 at 12:00 to 1:00 PM
Sleep Challenges



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UVA Health
Continuing Education


Complimentary
Opioid Course
for Virginia Providers

MEETS MATE LAW REQUIREMENTS FOR DEA LICENSED PROVIDERS

Provided by the University of Virginia School of Medicine
and the School of Nursing

Substance Misuse and Opioid Use Disorders
A National Problem – An Interprofessional Solution

On Demand Education available beginning July 31 at [CMEVillage.com](https://www.cmevillage.com)



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VMAP Early Childhood Line

Now accepting calls!



1-888-371-VMAP (8627)

Consultations with early childhood specialists!
Such as **developmental/behavioral pediatricians** and **early childhood child psychiatrists**

In the next year, VMAP plans to expand its early childhood program to increase coverage and types of early childhood specialists available to PCPs via the VMAP line. This will include early childhood care navigation to help PCPs, patients, and families navigate and find referrals for services.

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VMAP ECHO 2023 Deeper Dive Cohort Members

slide 1 of 2



Suzanne Alonso, MSN, CPNP-PC
Lynchburg Pediatrics, Forest



Susan Ashton-Lazaroae, MD
ALL Pediatrics
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Lelia Binder, MD
Sterling AllCare Pediatrics
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Brittany Butler, PA-C
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Chrystal Doyle, APRN, FNP-BC, PMHNP-BC
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Jadig Garcia, PhD
The Pediatric Center
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Jennifer Herrera, MD
UVA Neurodevelopmental
Behavioral Pediatrics



Vicki Holmes
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Morgan Honickel, LCSW
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Nadia Islam, PhD
The Pediatric Center
Glen Allen



Stephanie Konkus, MD
Town Pediatrics
Leesburg

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VMAP ECHO 2023 Deeper Dive Cohort Members

slide 2 of 2



Paula Labriola, MD
Woodbridge



Nair Maya, MD
Capital Area Pediatrics
Herndon



Marina McBee, CPNP
Capital Area Pediatrics
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Ayanna McCray, MD
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Capital Area Pediatrics
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Jackie Winkelvoss, RN
Capital Area Pediatrics
Oakton


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Hub Faculty


Questions?
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Beth Ellen Davis, MD
Moderator




Jacqueline Cotton, MD
Pediatrics




Mary Margaret Gleason, MD
Child Psychiatry




Michael Mintz, Psy.D
Psychology



Polly Panitz, MD
Developmental Pediatrics




Tammy Taylor-Musoke, LCSW
LMHP



Robin Cummings, MSHA
Program Coordinator

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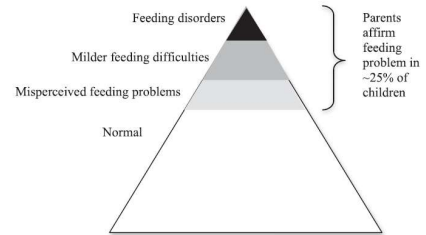


FEEDING SELECTIVITY(PICKY EATER) :
WHEN IS IT A PROBLEM IN YOUNG
CHILDREN?

Beth Ellen Davis MD MPH
And borrowed material with
permission from
Tegan Medico, MS, MPH, RDN,
CNSC

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Objectives



1. Describe the common-ness of picky eating in early childhood
2. Differentiate between picky eating and feeding/swallowing disorders, ARFID
3. How PCPs can address the majority of feeding problems in young children!

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Special Article

Correlates of picky eating and food neophobia in young children: a systematic review and meta-analysis 2017

Natasha Chong Cole, Ruopeng An, Soo-Yeun Lee, and Sharon M. Donovan

- Prevalence = 22% (80% of medically complex children)
- Rating = 2.51 (95% CI 2.42-2.59), 1 = never picky, 5 = always picky

Mixed or Null Correlates:

Child sex
Socioeconomic status
Race
Ever breast-fed
Duration of breastfeeding
Parental weight
Child-care centers

Positive Correlates:

Low maternal education
Maternal dislike of fruits & vegetables
Child age
Complementary foods started >10 months
Non-responsive feeding strategies

Negative Correlates:

WIC participation
Baby-led weaning
Number of children in household
Responsive feeding strategies



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Feeding: Defining Picky vs. Problem Eaters

Picky Eaters	Problem Eaters
Typically eats w/family although different foods	Typically eats different foods than family and often eats alone
Decreased range/variety although consumes \geq 25-30 foods	Restricted range/variety, <15-20
Foods lost due to "burn out" RETURN within diet after >2 wks	Foods lost are not re-acquired, when a new food is added, another food is lost
Will accept new foods on plate, usually can touch or taste	Melt down w/new foods
Consumes \geq 1 food from all food groups, varying w/in textures of foods	Refuses entire food groups or foods of certain texture
New foods added after multiple exposures 10 attempts is typical	Adds new foods >25 attempts
Eats only certain types of foods	Brand and packaging specific eating
Reported as picky eater at some well child checks	Persistently reported as picky eater at multiple well child checks

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To worry or not to worry?

- Body weight/composition and growth? → Unclear relationship
- Micronutrient inadequacy? → More likely
- Avon Longitudinal Study of Parents and Children (ALSPAC), picky eaters in the UK consumed...
 - Equal calories
 - Less meat, fish, vegetables, fruits → less protein, iron, zinc, carotene
 - Iron and zinc below recommended intake levels
 - More sugary foods and beverages in later childhood
- Family stress → ABSOLUTELY!

Cole *Nutr Rev* 2017
 Holley *Appetite* 2015
 Taylor *Am J Clin Nutr* 2016
 Patel *Nutrients* 2020

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To worry or not to worry?

- #1. Rule out swallowing disorder.
- #2. Rule out feeding disorder.
- #3. For picky eaters: Validate and reassure.
- #4. Check ourselves.
- #5. Give caregivers tools.

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#1. Rule out swallowing disorder.

Swallowing

Dysfunction of pharyngeal or esophageal phases

Structural impairments

Neurological impairments

Risk of aspiration or impaction

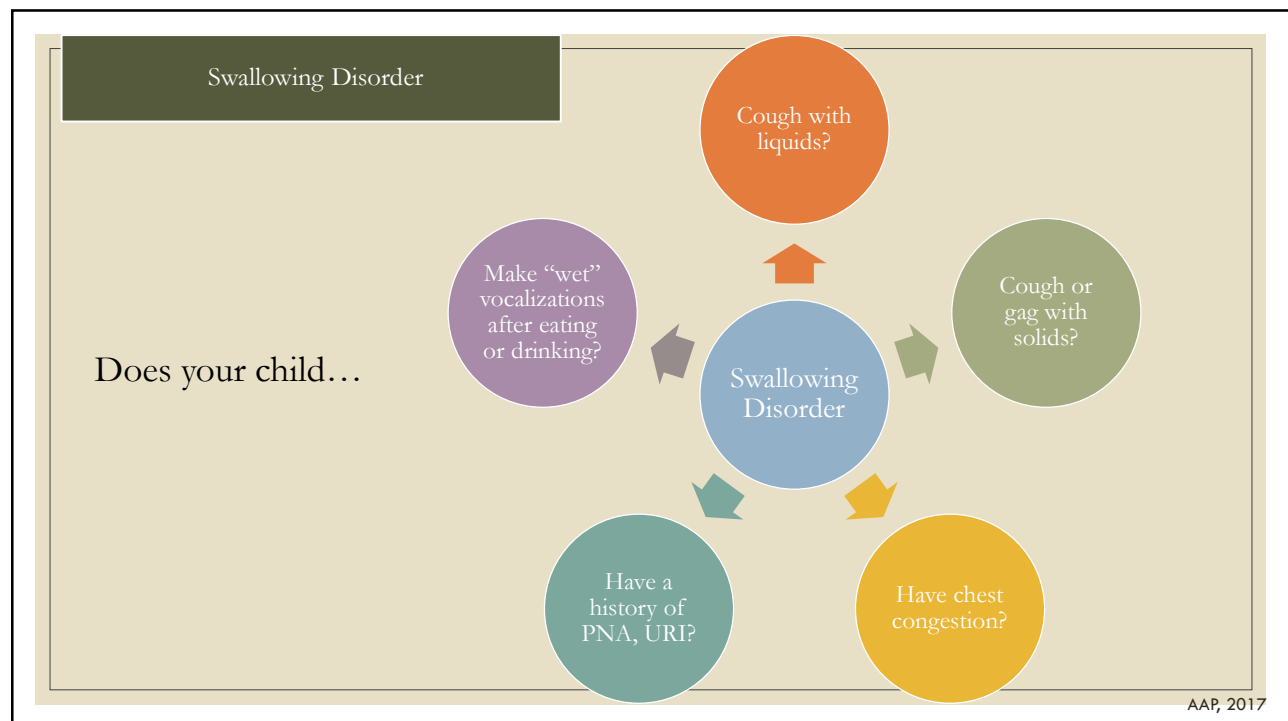
Feeding

Dysfunction of oral phase

Sensory disorder

No aspiration

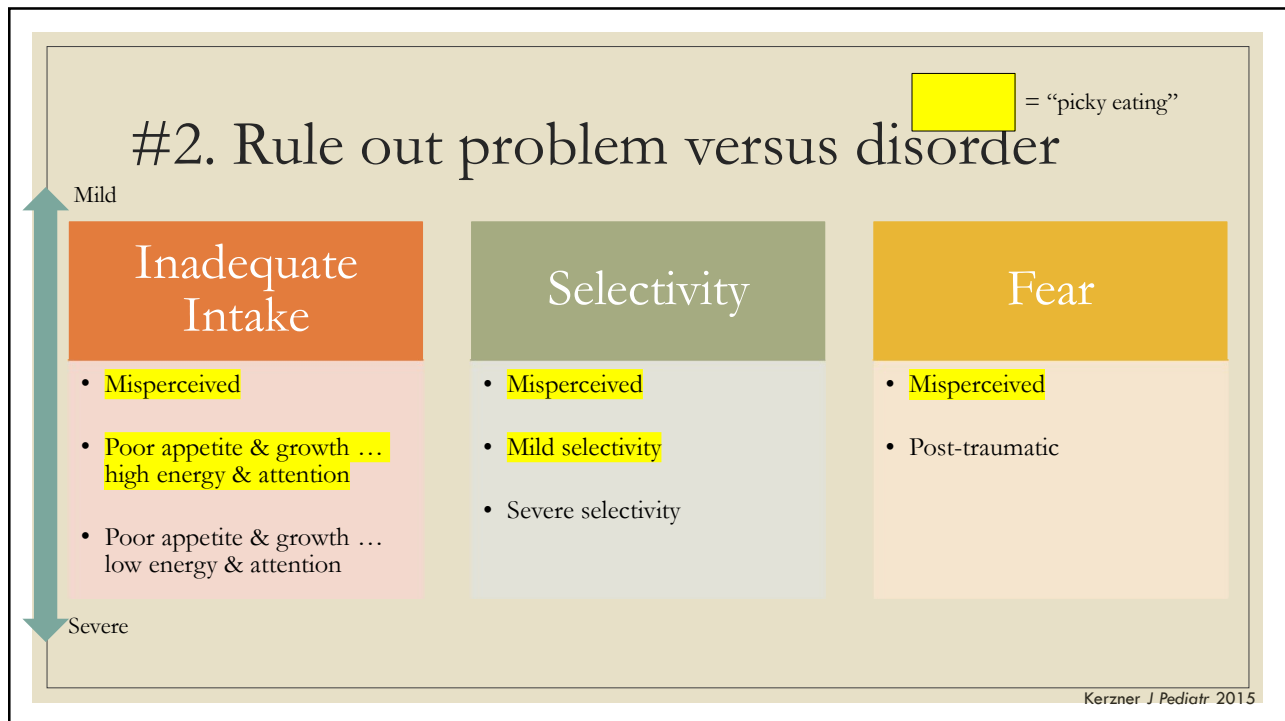
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Inadequate Intake


 = "picky eating"

Characteristics	Treatment
<p>Misperceived</p> <ul style="list-style-type: none"> ◦ Adequate growth ◦ Risk of progressing to feeding disorder <p>↓Appetite, Growth + ↑Energy, Attention</p> <ul style="list-style-type: none"> ◦ More interested in playing & talking ◦ Often occurs with shift to self-feeding <p>↓Appetite, Growth + ↓Energy, Attention</p> <ul style="list-style-type: none"> ◦ Withdrawn, apathetic, not interactive ◦ Uninterested in food or environment ◦ Depressed, non-interactive caregiver ◦ Symptom of malnutrition 	<p>Misperceived</p> <ul style="list-style-type: none"> ◦ Reassure caregiver of growth ◦ Encourage trust of child's hunger/satiety <p>↓Appetite, Growth + ↑Energy, Attention</p> <ul style="list-style-type: none"> ◦ 3 meals, 2 snacks ◦ Water between meals & snacks ◦ High-calorie foods ◦ Caregiver modeling ◦ Appropriate discipline at mealtimes ◦ Caregiver attention only for good behaviors <p>↓Appetite, Growth + ↓Energy, Attention</p> <ul style="list-style-type: none"> ◦ Nutritional supplementation (oral vs tube) ◦ Supporting the caregiver ◦ Childhood intervention programs

Kerzner J Pediatr 2015

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Selectivity

 = "picky eating"

Characteristics	Treatment
<p>Misperceived</p> <ul style="list-style-type: none"> ◦ Neophobia → 12-24 months ◦ Resolves with repeated exposures ◦ Adequate growth <p>Mild Selectivity</p> <ul style="list-style-type: none"> ◦ Tries foods but likes relatively few ◦ Does not resolve with repeated exposures ◦ Adequate growth ◦ At risk of behavioral problems (conflict with caregiver) <p>Severe Selectivity</p> <ul style="list-style-type: none"> ◦ <10-15 foods ◦ Whole categories excluded ◦ Taste, texture, smell, temperature, appearance ◦ Other sensory aversions ◦ May or may not impact growth 	<p>Misperceived</p> <ul style="list-style-type: none"> ◦ Reassure caregivers ◦ Repeated exposures (8-15 times) ◦ Avoid coercion, bribery, & punishment <p>Mild Selectivity</p> <ul style="list-style-type: none"> ◦ Caregiver modeling ◦ Child involvement in food selection & preparation ◦ Making food "fun" (shapes, names, dips, etc.) <p>Severe Selectivity</p> <ul style="list-style-type: none"> ◦ Nutritional supplementation (oral vs tube) ◦ Texture modification ◦ Behavioral and/or oral-motor therapy <ul style="list-style-type: none"> ◦ Food chaining/shaping (systematic desensitization) ◦ Strong flavors (sensitization)

Kerzner J Pediatr 2015

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 = "picky eating"

Fear

Characteristics	Treatment
<p><u>Misperceived</u></p> <ul style="list-style-type: none"> ◦ Crying unrelated to hunger ◦ Adequate growth ◦ Risk of progressing to feeding disorder <p><u>Post-traumatic</u></p> <ul style="list-style-type: none"> ◦ Abrupt cessation of feeds by child ◦ Progresses to feeding refusal ◦ Impaired growth <p>Examples of trauma:</p> <ul style="list-style-type: none"> Force-feeding Choking event Painful oral procedures Prolonged peri-prandial GI symptoms 	<p><u>Misperceived</u></p> <ul style="list-style-type: none"> ◦ Reassure caregiver of growth ◦ <i>Medical intervention to resolve cause of pain</i> <p>◦ <u>Post-Traumatic</u></p> <p>◦ <u>Infant</u></p> <ul style="list-style-type: none"> ◦ Altered equipment and/or environment ◦ Sleep-feeding schedule ◦ Early transition to solids or cup <p>◦ <u>Older Child</u></p> <ul style="list-style-type: none"> ◦ Reassurance + positive reinforcement ◦ Nutritional supplementation (oral vs tube) ◦ Hunger inducement ◦ Cognitive-behavioral therapy ◦ Pharmaceutical intervention

Kerzner J Pediatr 2015

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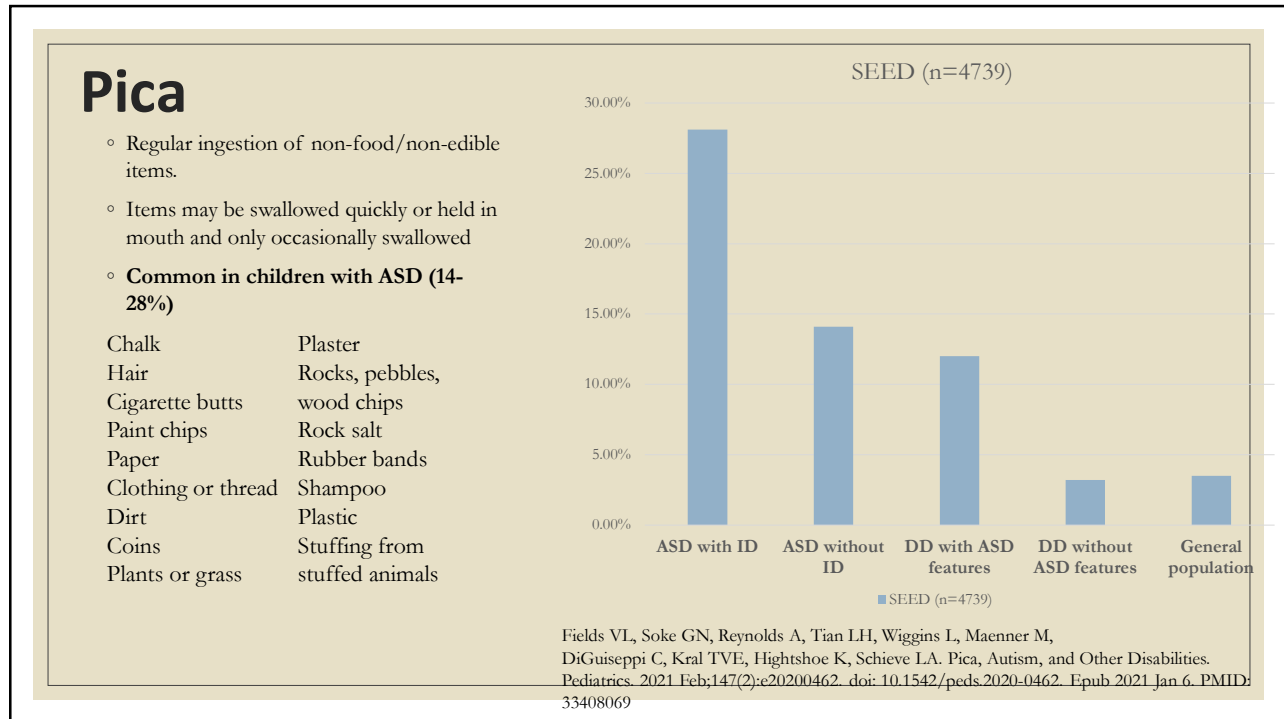
What is ARFID?

- Avoidant Restrictive Food Intake Disorder

DSM-5 *NEW (2013)*

1. An eating or feeding disturbance (e.g., apparent lack of interest in eating or food; avoidance based on the sensory characteristics of food; concern about aversive consequences of eating) as manifested by persistent failure to meet appropriate nutritional and/or energy needs associated with one (or more) of the following:
 - Significant weight loss (or failure to achieve expected weight gain or faltering growth in children)
 - Significant nutritional deficiency.
 - Dependence on enteral feeding or oral nutritional supplements.
 - Marked interference with psychosocial functioning.
2. Not due to medical condition, lack of food, cultural practice, or meets criteria for AN
3. Common features:
 - <10 foods, brand only, use of oral supplements, excessive milk intake, getting worse after age 3-4, preferred foods are dropping off "plate" and not being replaced with new foods.**

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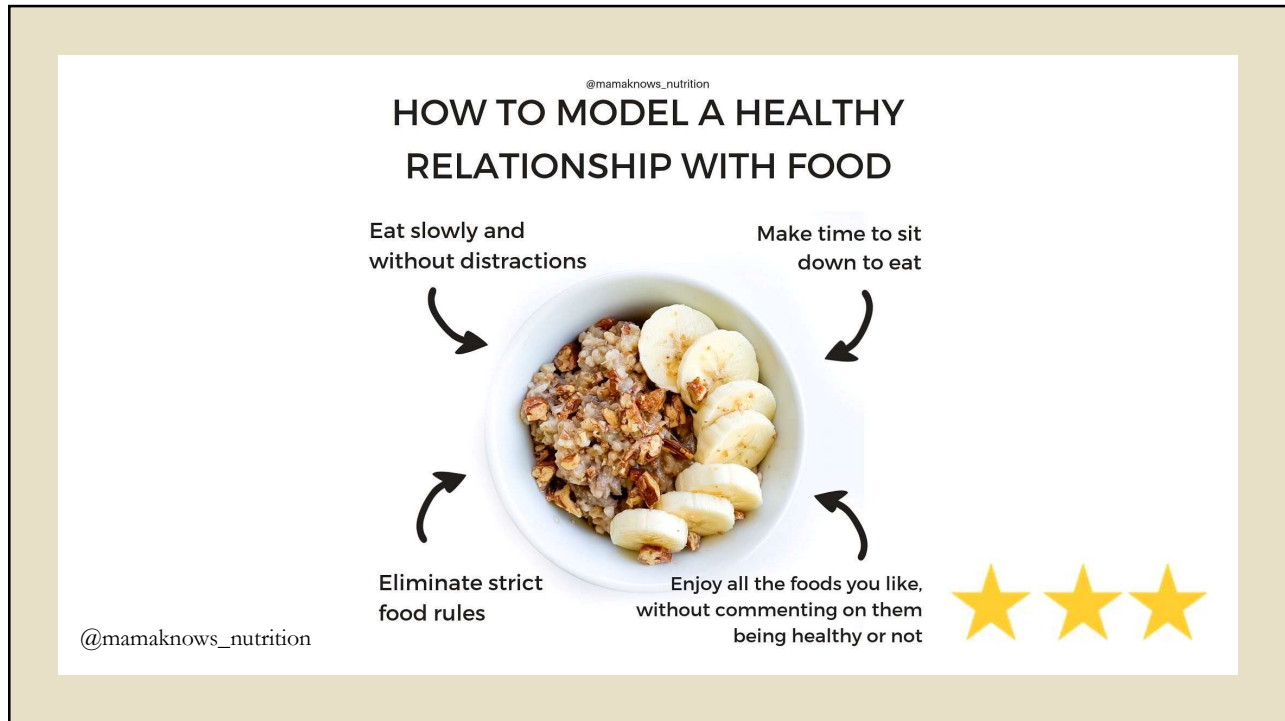


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#3. For Picky eaters: Validate and reassure.

- The struggle is real. (“Misperceived” is a term best left in the literature!)
- Preference for familiar foods is normal.
- Genetic and age-related sensitivities to bitter tastes are real.
- Toddlers’ fear is real. Avoid labeling them as difficult, stubborn, spiteful, or bad.
- Check our own biases at the door.

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Table 1. Relationship between Parenting Styles and Perception of Child Feeding Behaviors, Parental Feeding Practices, & Consumption Patterns.

Parenting Style	Characterization [46]	Association with Parental Perception of Child Feeding Behavior [45]	Association with Parental Feeding Practices [50]	Association with Parental Food Practices [51]	Association with Child's Consumption Patterns [52]	
Permissive	Low control; High warmth	Lenient; Accepting of child impulses & actions	Positively associated with perception of picky eating behaviors	Negatively associated with modeling & monitoring	Negatively associated with mealtime structural practices, healthy food modeling, & household food rules	N/A
Authoritarian	High control; Low warmth	Exhibits control & regulation over child behaviors	Positively associated with non-picky eating behaviors	Positively associated with restriction & pressure to eat; Negatively associated with monitoring	Negatively associated with mealtime structural practices & healthy food modeling	Negatively associated with vegetable consumption & availability of fruits and vegetables
Authoritative	High control; High warmth	Balance of control & child autonomy	Positively associated with non-picky eating behaviors	Negatively associated with restriction; Positively associated with modeling, monitoring, & perceptions of responsibility	Positively associated with mealtime structural practices & healthy food modeling	Positively associated with vegetable consumption & availability of fruits and vegetables

Patel *Nutrients* 2020

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#4. Check ourselves.

Have we encouraged families to indulge selectivity out of fear of poor growth?

Have we micromanaged [normal] weight fluctuations, adding to stress?

Have we forgotten to praise parents and trust kids?

Have we overlooked barriers to food availability in the home?

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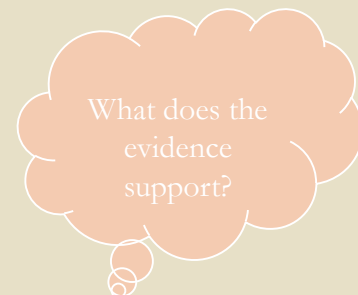
#5. Give Caregivers Tools.

“I tried everything!”

REPEATED EXPOSURES (10-15 times)

- *Most effective of all strategies
- *Taste > visual...but both are important.
- *Consider home food environment and food insecurity.

Encouragement...NOT pressure.



Holley *Appetite* 2018
Keller *JAND* 2014
Niketsing *Appetite* 2018
Patel *Nutrients* 2020

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WHY YOU SHOULD SKIP THE "JUST ONE BITE" RULE

One bite of broccoli gives you:

Encourage a bite, yes.

Demand a bite, no.

1 calorie

1% DV Vit A

0.1% DV Calcium

Whiny kid

Kid who thinks broccoli is a chore

@mamaknows_nutrition

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#5. Give Caregivers Tools. “I tried everything!”

REPEATED EXPOSURES (10-15 times)

- *Most effective of all strategies
- *Taste > visual...but both are important.
- *Consider home food environment and food insecurity.

Encouragement...NOT pressure.

Modeling

Mealtime rules about behavior... NOT about what or how much to eat

Non-food rewards...NOT preferred foods

Flavor-flavor learning...NOT hiding ingredients

Cooking vegetables, herbs and spices, dips (HAVING FUN)

What does the evidence support?

Holley *Appetite* 2018
Keller *JAND* 2014
Niketsing *Appetite* 2018
Patel *Nutrients* 2020

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Practical Strategies to Offer Families for picky eaters

- Establish meal and snack times
- Food Hierarchy
 - See → smell → lick → chew → swallow
- Avoid grazing
- Postural stability
- Limit meal times
- Involve the child in preparation
- Social and healthy meal times
 - Turn off ipad and TV
- Offer familiar foods with new foods
- Food chaining or food flavoring:
 - small variations on preferred foods
- Avoid “burn out”
- Family Accommodation Scale



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References

- Cole NC, An R, Lee SY, Donovan SM. Correlates of picky eating and food neophobia in young children: a systematic review and meta-analysis. *Nutr Rev.* 2017;75(7):516-532
- Holley CE, Haycraft E, Farrow C. “Why don’t you try it again?” A comparison of parent led, home based interventions aimed at increasing children’s consumption of a disliked vegetable. *Appetite.* 2015;87:215-222.
- Keller KL. The use of repeated exposure and associative conditioning to increase vegetable acceptance in children: explaining the variability across studies. *JAND.* 2014;114: 1169–1173.
- Nekitsing C, Blundell-Birtill P, Cockcroft JE, Hetherington MM. Systematic review and meta-analysis of strategies to increase vegetable consumption in preschool children aged 2–5 years. *Appetite.* 2018; 127: 138–154.
- Taylor CM, Northstone K, Wernimont, SM, Emmett, PM. Macro- and micronutrient intakes in picky eaters: a cause for concern? *Am J Clin Nutr.* 2016;104(6):1647-1656.

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Case Presentation

Nithiyakalyani Panneerchelvam, MD
Fairfax



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2y, 5m male with feeding difficulties	
Prior medical, MH dx	<ul style="list-style-type: none"> • Ex 22 weeker • Grade 3 Left VUR (Vesicoureteral Reflux), GERD • EI: Motor Delay, Speech Delay, Ptosis • Myopia • History of Covid 4/22 admitted for Remdesivir
Symptoms	<ul style="list-style-type: none"> • Parents report being picky eater. Mom is feeding him most of the time. <ul style="list-style-type: none"> • <i>Felt after Covid was not eating as well. Has to distract him and feed.</i> • <i>Has had periods of time where he was refusing to eat for an entire day.</i> • <i>Has seen GI and put on periactin. Parents use it on and off but not consistently.</i> • <i>Was taking pepcid didn't feel like that helped so stopped it.</i> • Early intervention - they have done occupational therapy as well • Concerns for autism and has appointment with Developmental Pediatrician
Family, social hx	<ul style="list-style-type: none"> • Race: Southeast Asian • Only child and first child for both parents • Started daycare summer 2023
Medications	Pepcid, Periactin
Screens	Hemoglobin - normal at 2 years Failed MCHAT at 2yo well check
CONSULT QUESTIONS:	
<ul style="list-style-type: none"> • Cultural difference in feeding pattern related to feeding difficulty? • Post-Covid related to feeding difficulties? • Periactin role long term? 	

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Wrap-up

Our next session...

Topic:	Sleep Challenges
Date:	Thursday, September 28 @ 12:00 to 1:00 PM
Case presenter:	Nair Maya, MD
Didactic presenter:	Polly Panitz, MD

Today's session recording will be posted to the cohort webpage @ <http://www.virginiapediatrics.org/vmap/echo/>

VMAP ECHO 23 Deeper Dive → Password = 2019VMAP

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