

**I'll tell you what I
want...what I really,
really want:**

**Intrinsic motivation
in Responsive
Feeding Therapy**

With:

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Disclosures

Jennifer Berry (financial): Jennifer is compensated for her work on this course by way of her owner's draws at Spectrum Pediatrics. Spectrum Pediatrics will be receiving a speaking fee and royalties for Jennifer's participation in this course. Spectrum Pediatrics financial success impacts Jennifer's pay. Methods and outcomes from Spectrum Pediatrics will be discussed in this course. Jennifer is a team member of RFPPro

Jennifer Berry (non-financial): Jennifer is a cohost of the Tube to Table Podcast and the upcoming Eat Love Thrive Podcast about responsive feeding.

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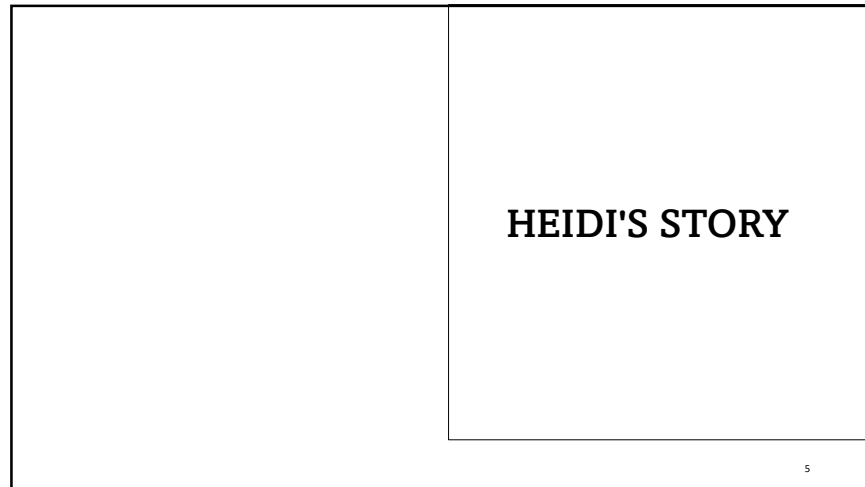
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JENI'S STORY

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Today, you will learn:

1. Basic intrinsic motivations to eat
2. Different barriers to recognizing and responding to intrinsic motivators to eat.
3. The impact of age and development on the intrinsic motivations to eat
4. Existing evidence about the importance of internal motivation for eating in the lifelong healthy eating

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Our Lens:

- We use a responsive feeding approach
- We use parent coaching as the basis of interaction
- Our goal is to make mealtimes meaningful and enjoyable

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"Motivation is a fire within. If someone else tries to light that fire under you, chances are it will burn briefly. "

Stephen Covey

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Extrinsic Motivation

Motivated to perform an activity to earn a reward or avoid a punishment



Intrinsic Motivation

Motivated to perform an activity for its own sake and personal rewards



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Extrinsic motivation



- Tangible (rewards such as stickers) or Intangible (words or praise)
- Negative (force-feeding) or Positive (cheering or smiling)
- Short-term (eat one bite and we are done) or Long-term, (if you clean your plate every day this week, you can have a new bike)

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"Although it is plausible that children will be more likely to choose the healthy option when it is accompanied by a tangible reward, **there is no reason to believe that this choice will persist** in the form of more positive attitudes or improved future decision-making when the reward is removed."

Grubliauskiene, 2012

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Extrinsic motivation



Studies have mixed findings (both food and non-food)

- Rewards have been shown to decrease intrinsic motivation (Deci & Ryan, 2008)
- Rewards are more likely to negatively impact intrinsic motivation if seen as pressuring or controlling (Wiersma, 1992; Vansteenkiste & Deci, 2003)

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Extrinsic motivation and praise



Praise has complex and differing effects on a child's intrinsic motivation, depending on how it is delivered (Henderlong & Lepper, 2002)

- ❖ Praise is correlated to improved intrinsic motivations when it:
 - is perceived as **sincere**
 - promote **autonomy**
 - provides positive information about **competence**
 - avoids **social comparisons**
 - conveys **realistic expectations**

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Extrinsic motivation and food



- May result in increased intake, depending upon personality and existing feelings about the food (Grubliauskiene, 2012)
- High controlling practices create a negative environment and contribute to picky eating (Van de Horst, 2012)
- Persuasive eating and reward for eating were negatively correlated with enjoyment of food (Jansen, 2018)
- Rewards for foods resulted in dislike and avoidance of those food (Savage, 2007)
- Both threats to withdraw play privileges and play rewards have been associated with food refusal (Orrell-Valente, 2007)
- Tangible rewards can result in undermining existing positive feelings about food (Grubliauskiene, 2012)

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Intrinsic Motivations to Eat

Connection
Curiosity
Comfort
Pleasure
Hunger/Appetite

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Connection

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If you could
have dinner with
anyone, who would
it be?

<https://www.masterfoods.com.au/our-stories/make-dinnertime-matter>

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“Feeding can have a powerful influence not only on the physical health of children, but also on their social and emotional health....**the feeding relationship reflects the parent-child relationship.**”

Slaughter and Bryant (2004)

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Connection



- Celebration
- Shared culture
- Shared routine activity
- Generational experience
- Communication
- Consistency and grounding

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Connection



- Children learn to eat foods consistent with culture and family through social settings
- From as young as 12-14 months old, infants imitate food preferences of familiar adults (Hamlin & Wynn, 2012)
- More likely to imitate the food preferences of a "friendly" vs "antisocial" other (Hamlin & Wynn, 2012)
- Children are more accepting of novel food if others are eating the same thing (Addessi et al., 2005)
- Family routines and mealtimes have been shown to correlate with positive behaviors at adolescence, but also with parent mental health (Utter et al, 2018)

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What disrupts connection?



- Early medical experiences
- Worry cycle
- Stress
- Pressure to perform
- Unmet expectations
- Differences in temperament
- Parenting sense of competence (Aviram et al, 2015)
- Personal preferences, especially important with neurodiverse individuals

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How to facilitate connection



- First do no harm
- Facilitate sense of competence in parenting
- Create simple opportunities for successful connection
- Strengthen connection or develop routines outside of mealtimes
- Prioritize *inter*-action over action
- Discuss topics that *aren't* food
- Save negative discussions or comments for outside of mealtimes

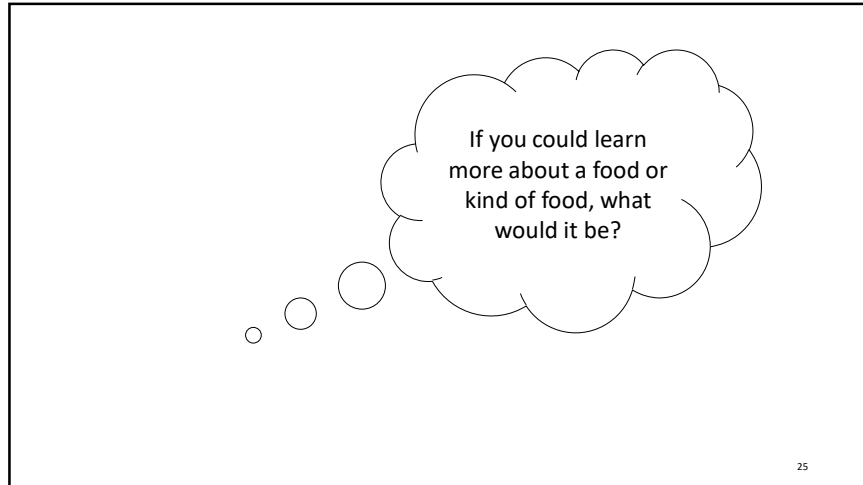
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Curiosity

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What is curiosity?

"Curiosity is the quality that urges a child to keep finding out more, to connect actions with outcomes, people with feelings. **Wondering *why* is the powerful engine that drives discovery.**"

Dr. Stanley Greenspan, "Great Kids"


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Curiosity and Temperament

- Differences as young as 9 months
 - Novel stimulus, including food
 - Approach vs. withdrawal differences (Moding and Stifler, 2014)
- Cautious or risk-taking
- Tenacious or distractible
- Perfectionist or dabbler
- Area of interest is individual

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What disrupts curiosity?

- Too much adult direction (Ginsburg, 2007)
- Too much or insincere praise (Henderlong & Lepper, 2002)
 - May appear to be threatening to autonomy
 - May appear to be judging
- Lack of opportunity
 - Children diagnosed with a feeding disorder had fewer positive interactions with parents in feeding AND in play (Atzaba-Poria et al., 2010)
- Lack of space/time
- Personal disposition, particularly with neurodiverse individuals
- Other limitations

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How to facilitate curiosity



- Allow for time without any adult expectations – create child-directed opportunities
- Facilitate sincere and trusting interactions around food
- Provide exposures that match the child's level of readiness
- Allow the child space and time before any supports or directions are included
- Explore physical supports that allow for the most autonomy in exploration
- Use developmentally appropriate activities
- Avoid commenting, praising or judging food interaction

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Comfort

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Think about the food that you turn to when you need comfort. What is it? Why?

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What is comfort?



"I've learned that people will forget what you said, people will forget what you did, but people will never forget how you made them feel."

Maya Angelou

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Comfort



- Based on individuals, families and cultures
- Food connects us with past calming or soothing interactions
- Times of stress can be damaging to the natural homeostasis. The body may try to maintain balance by increasing caloric intake
- Energy dense foods (high fat, high sugar) may trigger an emotional response such as stress relief
- Some foods release an increased level of dopamine
- Good food experiences can decrease feelings of helplessness and stress
- Neuroimaging study showed that a high carbohydrate/low protein diet improved coping behaviors in healthy individuals prone to high stress
(Frnka-Davis, Laura, 2020; Markus et al, 1998)

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What disrupts comfort?



- Unpredictable mealtimes or food experiences
- Unsafe or unpleasant mealtimes or food experiences
- Food judgement
- Diet culture
- Inadequate food access
- Misalignment of personal preferences

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How to facilitate comfort



- Increase mealtime predictability
 - Schedule
 - Routines
 - Seating, serving utensils
- Explore mealtime discussion topics with family
 - Pleasant
 - Developmentally appropriate for all to join
 - Un-related to food
- Explore caregiver food beliefs away from the child and table
- Provide comfort in a way that matches the child's needs
- Develop knowledge of resources for families to access food

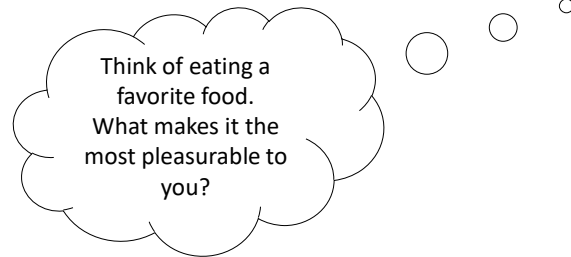
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Pleasure

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What is pleasure?



"The chief pleasure in eating does not 'reside in' costly seasoning or exquisite flavor, but in yourself."

Horace (65-8 B.C.) Roman lyric poet

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Pleasure



- Enjoyment of flavor is thought to begin in-utero (Nicklaus, 2016)
- Food properties, such as taste and texture
- Personal
- Can be learned or unlearned
- The taste themselves aren't necessarily innately pleasant or unpleasant, but in their ability to connect with the pleasure center in the brain
 - Positive foods can become negative
 - Negative foods can become positive (Berridge, 2009)

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What disrupts pleasure



- We all perceive stimuli differently, this can be especially true for those with brain-based differences or who are experiencing high stress (smells, tastes, noise, lights, etc can all be too much)
- Pairing foods themselves with a noxious stimuli, even if they used to be perceived as pleasant
- Repeated negative mealtimes can result on those negative emotions being "encoded" into the mealtimes for both parents and children (Dovey, 2008)
- Strong inverse reaction between picky eating and enjoyment of eating (Van der Horst, 2012)

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How to facilitate pleasure



- Explore ways to decrease overwhelm
- Consider personal preferences with food and mealtime choices
- Increase mealtime predictability
 - Schedule
 - Routines
 - Seating, serving utensils
- Explore child's likes and dislikes
 - Have a discuss about why, including going past the basic food group categorization
- Discuss ways to facilitate food tasting without pressure or expectation of eating
- Discuss ways to allow for eating without food judgements

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Hunger

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Picture yourself at the end of a long day when you had to skip lunch. What do you want to eat?

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Hunger



"Hunger is the best sauce in the world. "

- Miguel de Cervantes Saavedra

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What is hunger?



- Hunger is the functional context in which we assign meaning to eating, which makes that task different than playing or exploring
- Homeostatic hunger
 - Controlled by hypothalamus, hormones, blood sugar, emptiness of stomach/intestines
 - Balances short term energy reserves
- Hedonic Hunger
 - Controlled by the nucleus accumbens and ventral pallidum
 - Triggered by the sight, smell, or taste of an enjoyed food (Berridge, 2009)
- Individuals ranked foods higher in attractiveness when presented with the food while hungry (Piech, 2009)

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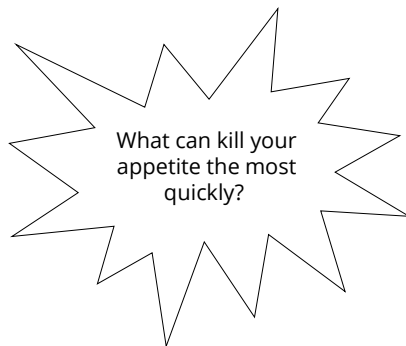
What is Interoception? (somatic awareness)



- Interoception refers to body's ability to detect and process internal stimuli
- There are differences in individual capacity for interoceptive abilities in relation to hunger, fullness, and thirst (Stevenson et al., 2015)
- Disordered eating behaviors is associated with impaired interoception (Martin et al., 2019)
- Interoceptive sensitivity has been shown to be associated with emotion processing and behavior regulation (Hebert et al, 2013)

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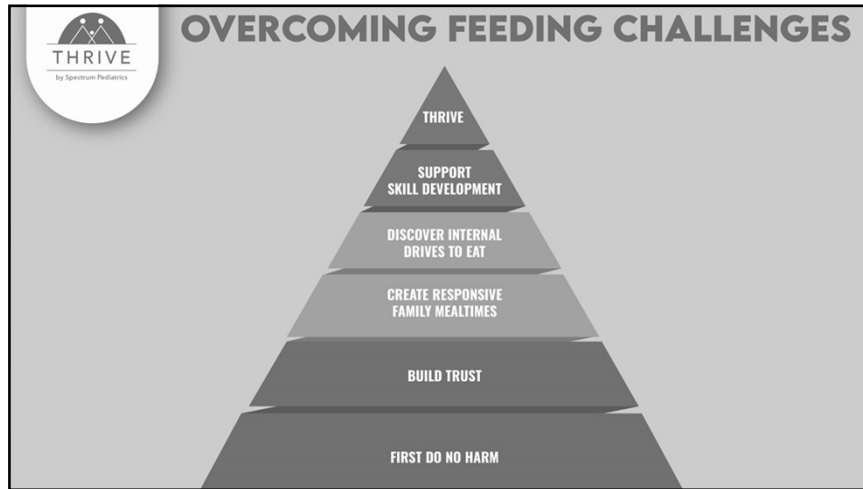
What impacts hunger and interoception?



- Physical state (illness, constipation, teething)
- Adult-directed feeding schedule and volumes
- Concentrated formula, calorically dense diet
- Negative medical experiences and trauma (Icenhour et al, 2021)
- Fear, anxiety and mealtime pressure
- Noxious or unsafe eating associations
- Lack of successful meals
- Age
- Brain and genetic differences can change the way individuals process and respond to hunger
 - Autism
 - Fetal alcohol syndrome
 - Russel silver syndrome

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How to facilitate hunger



- Manage medical complications
- Allow time for healing from trauma before starting new “work”
- Individualize volume and weight gain expectations
- Adjust the schedule and allow for breaks between meals
- Consider concentration or density of foods or formula
- Address stress, comfort, mealtime relationships before addressing hunger
- Facilitate successful mealtimes by starting at an attainable level
- Use hunger carefully when working with children who have experienced food scarcity

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How to facilitate somatic awareness



- Modeling
- Supportive Inquiry
- Visual aids
- Mindfulness
- Pairing story and experience
- Role-playing

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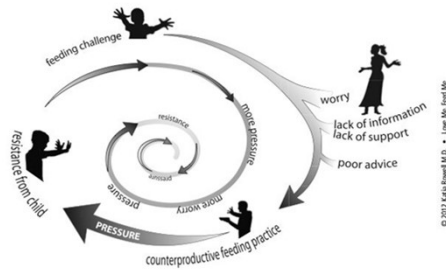
Barriers to Intrinsic Motivations

A Closer look

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Adult Concern or Trauma – Leading to Worry Cycle



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Traumatic Stress



According to the National Child Traumatic Stress Network:

Up to 80% of ill or injured children will experience some traumatic stress following life-threatening injury or illness

- 20% -30% of parents and 25%-35% of children and siblings may experience persistent traumatic stress reactions that can impact treatment and recovery

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Child Trauma



- Extreme independence can be a sign of trauma
- Food refusal can be a form of extreme independence AND self-protection
- Trauma greatly alters the survivor's response to sensory input
- TRAUMA CAN BE REPAIRED

(Robinson & Brown, 2016)

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Adult Direction/Control



- The grown up in the relationship is very important to the early eater. They have the power to override developing body awareness
- Teaching children to eat in ways that are not related to appetite, fails to support the development of healthy food preferences and appetite regulation
- When feeding situations are heavily adult-directed, it can interfere with co-regulation and the parent-child relationship

(Daniels, 2019; Hughes, et. al. 2005)

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Reward and Punishment



- There are some studies that show rewards can increase intake of a certain food in the short-term
- Rewards for foods can result in decreased intake of that food or a dislike of that food
- Refusal to eat most associated with pressure, play rewards or threats to withdraw play privileges

(Savage et al., 2007, Galloway et al., 2006, Orrell-Valente et al., 2007)

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Well beyond childhood...



- Study of 407 college students (Batsell et al., 2002)
 - Over 59% had at least one forced consumption episode
 - 76% of those were an authority figure that forced to consume disliked food
 - Recalled feeling helpless and a lack of control
 - 72% identified that they still would not willingly consume that food
- 170 college students (Ellis et al., 2016)
 - Recollections of pressure to eat were more predictive of picky eating than other adolescent behaviors

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Neurodiversity



We are all unique, and all deserve respect, enjoyment, connection, pleasure, comfort and love in a way that feels good to us.

Continued education and awareness is important.
Keep learning!

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Intrinsic is inherently individualized

How can you tell how to help?

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Observation Before Intervention



- Right intervention
- Right time
- Right reason

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What is he telling us?



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Goals and outcomes

Making the intrinsic measurable

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Intrinsic motivations and measurable behaviors



- Initiation
- Enjoyment
- Mealtime attention
- Family stress
- Goal Attainment Scaling

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Motor development



Intrinsic motivation has a positive impact on motor development

Our outcomes show significant improvement in one month with the addition of hunger and intrinsic motivation

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Questions?

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