Identify and Manage Feeding Difficulties in Primary Care

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Historical Perspective

Failure to thrive is as old as human history

Children were described as ‘sickly’, ‘weak’, or ‘defective’, and their fate, as a rule, was death.

Infanticide has been accepted in many cultures and practiced in cases where children were deformed, handicapped, or who failed to thrive.

*medea killing her sons

Failure to Thrive

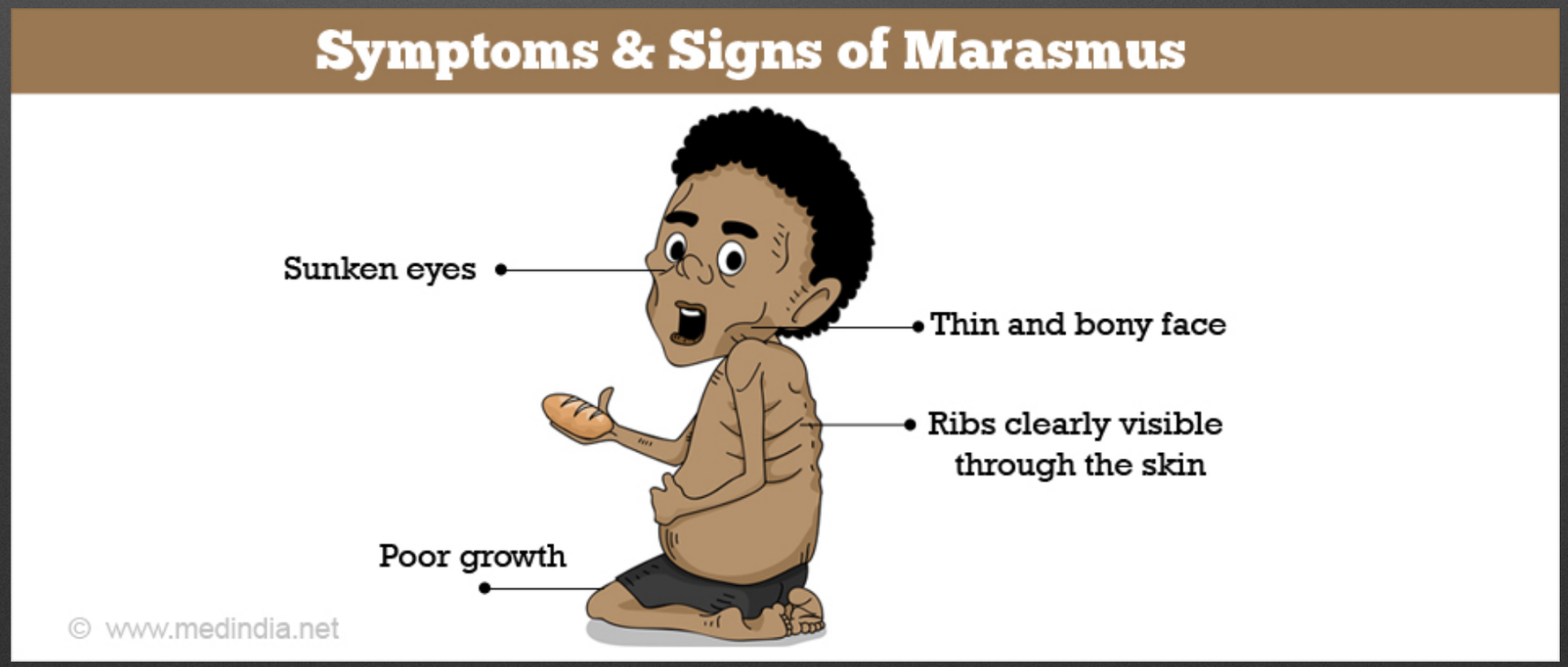
- Hospitalized and institutionalized children failed to thrive because they did not receive maternal nurturing and attention as a result of separation from their mothers

Failure to Thrive:

- The condition of a “wasted body” was called *marasmus,* was associated with some known or unknown physical disease
- Not disease, but as a combination of symptoms with many causes. But the primary reason is *inadequate nutrition*.
- Failure to thrive was coined by Holt in 1897

Z Score (percentile)	Length/height for age	Weight for age	BMI for age
>3 (99)	May be abnormal	May be abnormal (Use BMI)	Obese
>2 (97)	Normal	Use BMI	Overweight
>1 (85)	Normal	Use BMI	Risk of overweight
0 (50)	Normal	Use BMI	Normal
<-1 (15)	Normal	Normal	Normal
<-2 (3)	Stunted	Underweight	Wasted
<-3 (1)	Severely Stunted	Severely underweight	Severe wasted

BMI: Body mass index



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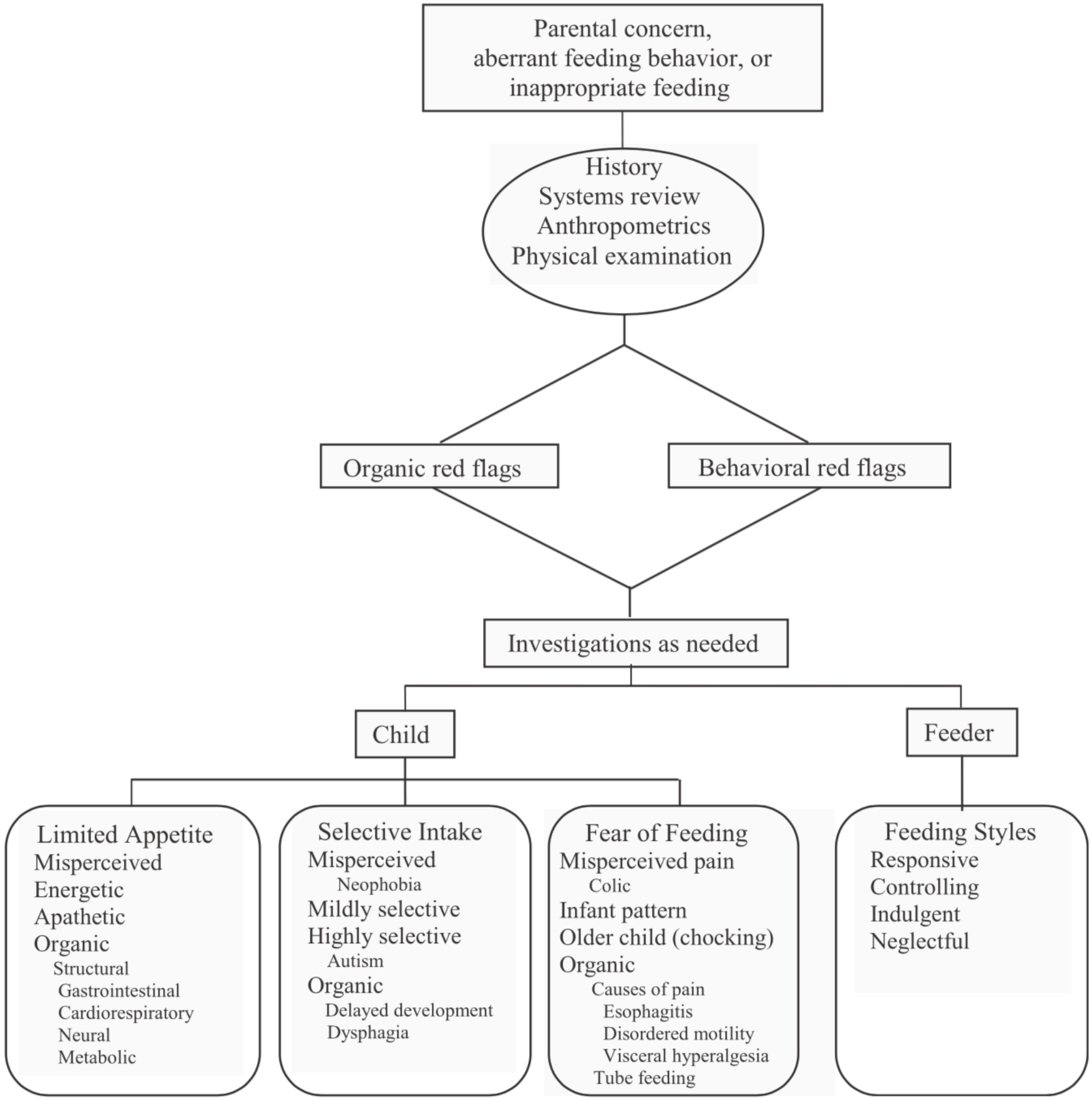
Growth and Nutrition Clinic:Referral Process

- Referral to Growth and Nutrition Clinic:
  - Weight or BMI less than the 10th %tile
  - Growth deceleration or slow rate of weight gain that puts child at risk.
  - Less than seven years old
- Feeding Clinic:
  - Mechanical defect in feeding mechanism of suck, bite, chew, swallow
- Outpatient Nutrition all others:

Feeding Problems

- Pediatric medical community generally focus on well-defined organic conditions, but do not emphasize a systematic approach to behavioral issues.
- Psychiatry field focus is more on behaviors problems
- Feeding difficulties must be conceptualized as a relational disorder between the feeder and the child
- The caregivers' feeding styles must therefore be incorporated into the management of these problems


Parental concern,
aberrant feeding behavior, or
inappropriate feeding
History
Systems review
Anthropometrics
Physical examination
Organic red flags
Behavioral red flags
Investigations as needed
Child
Feeder
Limited Appetite
Misperceived
Energetic
Apathetic
Organic
Structural
Gastrointestinal
Cardiorespiratory
Neural
Metabolic
Selective Intake
Misperceived
Neophobia
Mildly selective
Highly selective
Autism
Organic
Delayed development
Dysphagia
Fear of Feeding
Misperceived pain
Colic
Infant pattern
Older child (chocking)
Organic
Causes of pain
Esophagitis
Disordered motility
Visceral hyperalgesia
Tube feeding
Feeding Styles
Responsive
Controlling
Indulgent
Neglectful

Presenting Features of Feeding Difficulties

<u>Suggestive Symptoms/Signs</u>

Prolonged mealtimes
Food refusal lasting <1 mo
Disruptive and stressful mealtimes
Lack of appropriate independent feeding

Nocturnal eating in toddler
Distraction to increase intake
Prolonged breast or bottle-feeding

Failure to advance textures

Presenting Features of Feeding Difficulties

Organic Red Flags

Dysphagia
Aspiration
Apparent pain with feeding
Vomiting and diarrhea

Developmental delay
Chronic cardio-respiratory symptoms

Growth failure (failure to thrive)

Behavioral Red Flags

Food fixation (selective, extreme dietary limitations)

Noxious (forceful and/or persecutory) feeding

Abrupt cessation of feeding after a trigger event

Anticipatory gagging
Failure to thrive

Children Feeding Behavior

<u>3 principal categories:</u>

- Those not eating enough (limited appetite)

- Those eating an inadequate variety of foods (selective intake)

- Those afraid to eat (fear of feeding)

Children with Limited Appetite

- Misperceived :
  - excessive parental concern despite normal growth
  - Parents commonly perceive genetically small children with correspondingly “small” appetites as poor eaters.
  - feeding difficulty if anxious parents adopt inappropriate feeding practices.

- The Energetic, Active Child:
  - These children are repeatedly alluded to as nonorganic failure to thrive
  - refer to them as having “infantile anorexia.”
  - These problems develop during the transition to self-feeding
  - these children are active, energetic, curious, and far more interested in playing and talking than eating.
  - They refuse to remain seated during meals, eat small amounts, and frequently fail to gain weight.
  - There is no underlying organic explanation.
  - A hallmark is conflict between parent and child, which if unresolved may hinder the child’s ability to reach his or her optimal cognitive potential. This reflects conflict in the home environment, rather than low nutrient intake.

Children with Limited Appetite

- Apathetic, Withdrawn Child
  - These children are inactive, disinterested in eating and their environment, and communicate poorly with their caregivers.
  - They may appear undemanding and often fail to make eye contact, babble, or talk.
  - They and their caregivers appear depressed and often interact poorly.
  - Malnutrition is evident in these children.
- Organic Disease
  - Relevant conditions: gastrointestinal, cardiorespiratory, neural, and metabolic.
  - food allergy, celiac disease
  - Conditions causing pain in response to feeding (eg, esophagitis, gastritis, more subtle motility disorders, and even constipation)
-

Management of Limited Appetite

- Misperception:
  - Parents must be encouraged to accept the child's own interpretation of hunger and satiety.
  - Persuading them that the child is growing normally by demonstrating a normal growth pattern
  - reviewing basic feeding guidelines
- Energetic :
  - child with limited appetite needs help to recognize and respond appropriately to hunger and satiety.
  - feeding schedule that encourages hunger
  - Parents must model healthy eating
  - feeding schedule
  - child attention in response to positive eating behavior
  - enriching the diet calorically including the addition of nutritional supplements
  - Providing adequate nutrition and supportive interaction with an experienced feeder is sufficient to improve the apathetic child with limited appetite. This may be achieved through early childhood intervention programs or child protection services
- Organic disease:
  - medical condition influencing appetite must be addressed and, if possible, resolved.
  - Management is often complex requiring alternate feeding routes (eg, enteral tube or intravenous feeding, which further suppress appetite).

Children with Selectivity

- Misperception :
  - Neophobia misperceived by parents as inappropriate selectivity. However, it is a normal behavior begins at the end of the first year of life, peaks between 18 to 24 months and eventually resolves. Most children accept new foods, only after repeated exposures.

- Mild Selectivity :
  - Referred to as “picky eaters.”
  - consume fewer foods than average. unlike neophobia, repeated exposure to rejected foods tends not to result in acceptance by picky eaters.
  - major concern for them is not their nutrition, but family discord centered around coercive feeding and subsequent behavioral consequences.
  - In a study of children defined by their parents as picky, showed a higher incidence of subsequent behavioral problems, including anxiety, depression, aggression, and delinquency.
  - The problem may well be bidirectional: poor behavior prompting coercive and indulgent

Children with Selectivity

- Highly Selective :
  - Consequences are severe enough to consider it a feeding disorder.
  - These children limit their diet to 10 to 15 foods.
  - "sensory food aversions": a refusal to eat whole categories of foods related to their taste, texture, smell, temperature, and/or appearance.
- This problem can interrupt development of normal oral motor skills.
- Some of these children may have additional sensory manifestations, Autism is an extreme example.
- Up to 90% of autistic children have feeding problems.

Children with Selectivity

<u>Organic</u>

- Children with organic selectivity due to motor disorders tend to accept objects placed in their mouths, but have difficulty with all textures
- the highly selective child due to sensory processing deficits gags in anticipation of objects touching their mouth
- rejects only certain textures, mainly solid foods

Management of Selectivity

Misperception:

- educating parents to have reasonable expectations and counseling them to consistently and repeatedly expose children to new foods is needed.
- Foods must often be offered 8 to 15 times without pressure to achieve acceptance.

Mildly selective child:

- other simple techniques may be needed, such as “hiding” pureed vegetables in sauces, using “dips” to enhance flavor,
- modeling eating, giving foods appealing names
- involving children in food preparation
- presenting it in attractive designs

Management of Selectivity

highly selective

- child frequently requires a more intense and systematic approach to increasing variety.
- Behavioral therapists
- “food chaining,” the replacement of 1 food with a similar one, is effective.
- “fading” and “shaping” (gradually altering the taste, color, texture, and exposure to the food) are coupled with positive reinforcement

organic disease

- autism are frequently resistant to treatment.
- They may be nutritionally vulnerable with more extreme eating behaviors.
- Treatment best managed by specialists, coupled with nutritional supplementation and sensory integration approaches (eg, tactile exposure on skin, and then oral motor desensitization, and shaping and fading).
- In cases of hyposensitivity, strongly flavored foods and beverages may be better accepted and worth trying. Providing heightened oral sensation with spicy foods may improve incoordinate swallowing in some.

Children with Fear of Feeding

Misperception

- Some infants with excessive crying behavior are misperceived to be hungry and fearful of feeding as they resist the bottle or breast.
- Most of them are crying for other reasons, possibly an inability to calm themselves, or regulation or colic

Fear of Feeding in the Infant

- Painful feeding is surmised in an apparently hungry infant who eagerly starts feeding and then after a few swallows, rears off the nipple in apparent pain, but will eat contentedly when sleepy.
- In time, overt fear of feeding emerges and merely presenting the breast or bottle

Fear of Feeding in the Older Child

- This is seen in the child who chokes, gags, or vomits on food and then ceases to eat, most often solids.
- choking phobia
- Sometimes it is the result of a parent forcefully feeding the child

Organic

- Any organic condition resulting in significant pain with feeding has the potential to cause a fear of feeding.
- Tube-feeding dependent children
- disordered small bowel motility

Management of Fear of Feeding

- The main goal is to reduce anxiety associated with feeding/eating
- With misperception of the crying infant, the principal treatment is reassurance, a systematic appraisal and treatment of the causes of discomfort in the child as well as the alleviation of the feeder's anxiety.
- Reassurance , positive reinforcement with rewards, cognitive behavioral therapy, or psychiatric referral may be required
- With organic disease, resolution may require the cause to be identified and treated.
- referred to specialists

Caregiver Feeding Style

- Parents' actions alter a child's eating behavior
- Incorporating the influence of caregiver feeding styles
- Parental feeding practices are based on 4 well- described parenting and feeding styles:
- These styles are influenced by cultural norms, parental concern, and child characteristics.
  - Responsive
  - Controlling
  - Indulgent
  - Neglectful

Responsive Feeders

- Responsive feeders follow the concept of a division of responsibility
- The parent determines where, when, and what the child is fed; the child determines how much to eat.
- guide the child's eating instead of controlling it
- Set limits, model appropriate eating, talk positively about food, and respond to the child's feeding signals.
- arranges the schedule to induce appetite or by rewarding the achievement of goals, but does not resort to unpleasant coercive techniques.
- This feeding style has been reported to result in children eating more fruits, vegetables, and dairy products and less "junk food," resulting in a lower risk of becoming overweight

Controlling Feeders

- Controlling feeders are common
- approximately half of all mothers and a greater proportion of fathers employ these methods.
- These caregivers ignore the child's hunger signals and may use force, punishment, or inappropriate rewards to coerce the child to eat.
- These practices initially appear effective, but become counterproductive, resulting in poor adjustment of energy intake, consumption of fewer fruits and vegetables, and a greater risk of under- or overweight.

Indulgent Feeder

- Indulgent feeders cater to the child

- They tend to feed the child whenever and whatever the child demands, often preparing special or multiple foods. This feeder feels it is imperative to meet the child's every need, but by doing so ignores that child's hunger signals and sets no limits.

- Consequences of these feeding practices include lower consumption of appropriate foods (eg, milk) that contain important nutrients and a disproportionate consumption of items high in fat, increasing the risk of becoming overweight.

Neglectful Feeders

- Neglectful feeders abandon the responsibility of feeding the child and may fail to offer food or set limits.
- When feeding their infants, they may avoid eye contact and appear detached.
- Older toddlers are often left to fend for themselves.
- Neglectful parents ignore both the child's hunger signals and other emotional and physical needs. They may have emotional issues, developmental disabilities, depression, or other conditions that make it difficult for them to feed their child effectively.
- Neglect may be severe enough to result in failure to thrive.

How to Differentiate Feeding Style

- How anxious are you about your child's eating?
- How would you describe what happens during mealtime?
- What do you do when your child won't eat?

- *Responses from neglectful parents will be vague*
- *controlling parents will describe pressuring/forcing their child to eat*
- *Indulgent parents will describe pleading, begging, and preparing special foods*

- Another way to assess mealtime interactions is to have the parents videotape part of it

Guidelines

Avoid distractions during mealtimes (television, cell phones, etc)

Maintain a pleasant neutral attitude throughout meal

Feed to encourage appetite
- limit meal duration (20–30 min)
- 4–6 meals/snacks a day with only water in between

Serve age-appropriate foods
Systematically introduce new foods (up to 8–15 times)
Encourage self-feeding Tolerate age appropriate mess

Controlling parents should be guided to offer foods in a noncoercive way, rather than on the specific amounts or types of foods to be given.

Indulgent or neglectful parents should be more structured and precise.

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Feeding Observation

Caregiver Responsibilities:

- Recognize and respond to the infant's cues and respond in a contingent manner
- Soothe or quiet a distressed infant
- Demonstrate warmth and affection toward infant and communicate a positive feeling tone
- Foster cognitive growth through touch, movement, and talking
- Delay stimulating or responding until the infant signals readiness

Infant/Child Responsibilities

- Send clear cues to the caregiver, including:
  - Display of some tension at beginning of feeding and decrease in tension once feeding has begun
  - Have periods of alertness during the feeding
  - Older infants cue the caregiver for interaction through vocalization and smiles
  - Cue the caregiver of need for a break or rest
- Respond to the caregiver's attempts to communicate and interact
- Stop crying when the caregiver attempts to soothe
- Look in the direction of the caregiver's face then the caregiver talks
- make feeding sounds following feeding attempts by the caregiver
- Older infants vocalize or smile after the caregiver's vocalization or smile

http://depts.washington.edu/growing/Assess/Feeding.htm#Assessment of Feeding Performance

Feeding observation

Psychological Disorders in Families of Undernourished Children

- Family stressors : such as loss, marital conflict, financial insecurity, and cultural dislocation may impair the feeding relationship.

- Stress could make parents tense and preoccupied and consequently less sensitive and responsive interpreters of their infant's cues for hunger, satiety, and social interaction

- Psychiatry Disorder: depression, anxiety, thought disorder. A depressed parent is often out of touch with their own body nutritional needs, emotionally withdrawn and inexpressive. Such parents is at increased risk for missing hunger signals from the infant.

- Disturbance in infant parent relationship: feeding is an important medium for infant-parent communication and mutual adaption that any problems in the relationship are very likely to be reflected in feeding.

- Interactions around feeding are one of the major areas in which the infant-parent relationship evolves and takes shape during the first 2 or 3 years of life.

Feeding interaction:

- Parent and infant are not sending clear signals to each other or not reading signals accurately. Comparing the feeding interact to a dance: the following are a few observations that illustrate this lack if synchrony :
- A parent continues to spoon cereal into the mouth of the infant, who appears to have fallen asleep
- A large slab of ham is placed in front of a 14 month old in his high chair, no one notices it is too big for him to handle
- A mother feels rejected by a her distractible infant's squirming in her arms and cannot help the infant settle down to nurse
- A father repeatedly teases the infant by snatching away bottle just as she reaches for it
- An infant's hands are slapped each time she reaches for the spoon that her mother holds
- Feeding is mechanical and rushed, without eye contact or vocalization between infant and mother

Table 11.1 Dysfunctional thoughts, beliefs, and alternative ways of thinking

Event	Belief	Feeling	Behaviour	Outcome
Self-defeating thoughts and feelings				
Child fails to thrive	He refuses food to hurt me. I cannot cope	Anger, frustration, helplessness	Force-feeding, screaming, shouting	Food-avoidance behaviour
Cognitive change—alternative ways of thinking				
Child fails to thrive	He is a difficult child to feed. There are many children like him	I can try different ways of feeding, and I can manage	Being patient and encouraging when feeding a child	Child eats more, puts on weight

Source: Iwaniec, D. (1995) *The Emotionally Abused and Neglected Child*. Chichester: John Wiley & Sons Ltd

We agree to perform the following behaviours:

If Susan tries to take food, tries to swallow and opens her mouth	→	*Then* we will smile at her, tell her that she is a big girl, stroke her hair, touch her cheek, and will show pleasure in her behaviour
If Susan takes her food, does not spit or store food in her mouth	→	*Then* we will tell her how clever she is, that she is a champion and that we are very proud of her
If Susan eats what she is given within 20–25 minutes	→	*Then* we will tell her that she will grow fast and will be the strongest girl in the nursery/school or neighbourhood and that we love her for it
If Susan shows resistance and refuses to eat	→	*Then* we will leave her alone, will not pressurise her to eat, will not make any negative comments. We will try again in half an hour or so
If Susan plays with her food, throws the food on the floor and gets agitated etc.	→	*Then* we will remove the plate, say that we do not like her doing it and stop commenting on eating altogether and switch our attention from her for a few minutes