Treating complex feeding disorders in an intensive, day treatment setting.

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Disclosure of Relevant Financial Relationships
I have no financial relationships to disclose.

I will not discuss off label use and/or investigational use in my presentation
Traditional feeding therapy models

- **Feeding Clinic** - Comprehensive interdisciplinary evaluation at various intervals - 3, 6 months with recommendations for home therapy.

- **Local feeding therapy** - Early intervention in the home or center based therapy provided > 2 times per week.

- **Inpatient feeding programs** - Inpatient admission for severe feeding disorders. Decreased reliance on this type of model due to insurance issues.

- **Day Treatment feeding programs** - 2 to 6 week programs with 3 to 4 meals provided per day. Appears to be more prevalent than in past.
Encouragement Feeding program evolution

- **1991** - 5 week intensive interdisciplinary, inpatient program based on work by Dr. Blackman in Iowa.

- **1995** - 3 week stay - emphasis shifted from mainly “behavioral based” approach towards a more individualized approach.

- **1998** - 2 week, interdisciplinary, intensive, family centered care, day treatment approach.

- To date- over 450 children from over 35 different states and 4 countries have been treated.

- Recently, population has transitioned from mainly medically fragile, g-tube dependent children to severely rigid, problem feeders.
Treatment philosophy

Children with feeding disorders should be treated in an environment that exposes them to wellness and holistic treatment. These children need to increase their oral competence and comfort with food through typical, age appropriate meal time opportunities and experiences. This is accomplished by immersing children in sensory and oral functional therapy in a natural environment in the least restrictive manner. Promoting natural cycles of hunger/satiety and using age appropriate behavioral consequences provides a foundation for success.
Elements of the Encouragement Feeding Program

1). Comprehensive, holistic evaluation with recommendations for changes to be made prior to intensive treatment.

2). Individualized treatment program.

3). Frequency of service provision that is tailored to each child.

4). Family centered care that is child directed and provided in a naturalistic environment.
Comprehensive evaluation and development of treatment plan

- **Interdisciplinary**
  - GI, Allergy, Developmental Peds, OT, PT, SP, Nutrition, Psychology, SW, Education

- **Comprehensive**
  - Physiological, sensory, motor systems, oral motor status, parent-child interactions, developmental status, temperament, nutritional status, current feeding practices, goals and expectations.

- **Whole family oriented**

- **Determination of “barriers” to normal eating**
Treatment planning- whole team

- Determine “barriers” to normal eating- past and present
  - Physiological elements- GI system (*dysmotility, reflux, hunger/satiety disruption, poor tolerance of formula*)
    Cardiac system (*efficiency*)
    Respiratory (*efficiency, coordination with other systems*)
    Motor system (*tone, strength*)
    Sensory system (*disregulation, disorganization*)

- Oral motor skill set- (*tone, motor competence, experiences, sensation, safety*)

- Anxiety/rigidity/fear- (*temperament*)

- Environmental elements- (*developmental stages, parent-child interactions, physical environment, expectations*)
Determine “cascade” effects

What barriers impact other barriers

- Overnight drips or lengthy bolus feeds may impact hunger/satiety cycle.
- No hunger/satiety cycle results in lack of interest in oral exploration.
- No oral exploration results in oral inexperience and potential increased gagging.
- Gagging results in feeding aversion or avoidant behaviors and increased family stress.

- Low tone results in delayed overall motor skills and poor oral motor competence.
- Pushing transition to higher textures foods too soon can result in increased gagging.
- Gagging leads to oral aversion/food refusal.

Should focus on these primary barriers BEFORE using precious therapy time or approaching the mouth.
Individualize treatment first by:

- **Determining primary barriers to eating.**
  - tube dependence = limited internal motivation
  - oral motor inexperience or incompetence = poor skill set
  - rigidity/anxiety = limited variety
  - sensory disorganization = inconsistent eating and limited variety

- **Determining family goals and “goodness of fit”**.
  - tube weaning
  - variety
  - volume

- **Determining child’s temperament and cognitive status.**
  - shy, slow to warm vs. outgoing, gregarious
  - delayed or disordered language/cognition
Build success by:

- Promoting quality of relationship with foods prior to expecting quantity (SOS approach, food chaining)

  - If quality of interaction occurs, quantity will follow once hunger/satiety is established.

  - Quality of interaction should be child driven.
Promote success by:

- Normalizing hunger/satiety cycles:
  - Address motility issues
  - Develop hunger/satiety cycle by transitioning to day boluses
  - Set schedules for meals/tube feeds
  - Consistency of family involvement/interaction at meals

- Acknowledge normal developmental stages:
  - Universal stages/behaviors at 1, 2, 3 and 4 years of age
  - Educate parents regarding these stages
  - Encourage child driven activities to promote age appropriate independence
  - Use age appropriate limit setting, rewards, and contingencies.
Feeding pyramid

Quantity
Quality and variety
Oral skill set
Relationship with food
Relationship with textures
Physiologic stability

Bickley, 2011
Frequency of service provision

Traditional models
Home health and Early intervention
- 1 time per week or less
- Educate family to provide ongoing stimulation

Outpatient therapy centers
- 1 to 2 times per week
- Insurance driven at times.

In more recent days, there is a trend toward “intensives”
- 1 to 3 week intensive therapy sessions with pre and post measurement of skill attainment.
Frequency of service

“Practice makes perfect”
Procedural learning- “the act of repeating a complex task over and over again until all of the relevant neural systems work together to automatically produce the activity.” Zimbardo (1999)

Eating is a “procedural” activity that most people learn early and then do not need to “focus” on while doing. (mercercognitivepsychology.pbworks.com)

Children with feeding disorders characterized by lack of skill set may not have been able to learn this procedural activity.
More intensive frequency of service provision

Pro’s

- Reduces the need to “re-bond” with therapist or ‘re-teach” skills from previous week.
- Can move through skill set as fast as child shows skill attainment.
- Can provide more intensive family education.
- Able to replicate meal times easier.
- Family can focus on goals with fewer other things to worry about.
- Avoids absences from vacations.

Con’s

- Intensity may depend on developmental level and motor status- can’t hurry tone or cognitive skills.
- Some children get overwhelmed by intensity.
Family centered care environment

• Replicate “normal’ home practices.
• Provide “natural” environment for meals.
• Incorporate whole family if possible and eat together.
• Provide ongoing education at each meal when possible.
• Determine and prioritize goals together.
• Recognize and embrace cultural difference and traditions when possible.
• Use natural consequences and developmentally appropriate meal time schedules.
OUTCOMES

• **Tube weaning**- 75 to 80% children weaned within 6 to 9 months.

• **Goals met**- 70% of all goals met (last 2 years)

• **Parent satisfaction**- 2.70 out of 3.0

• **Family Stress: pre and post**-
References

- Wikipedia.org/wiki/practice_(learning_method), 2013