This module was developed by the Pacific West MCH Distance Learning Network.

The Pac West MCH Distance Learning Network is a collaboration between the University of Southern California’s University Affiliated Program and the University of Washington’s Center on Human Development and Disability. The project’s advisory board is made up of representatives from states in the Pacific West region: AK, AZ, CA, HI, ID, NV, OR, WA and other states in the Western US: CO, MT, UT, WY.

All of these materials are available free-of-charge on the website listed.

Participants may also be interested in the self-study curriculum.

There may be a charge for continuing education credit.

These four modules are available as group-study topics for inservices and other meetings. The material in these modules is best learned through an interactive process between the group leader and amongst the group members. A Leaders’ guide, powerpoint presentations, handouts and video segments are available free-of-charge.

These are the activities that we will be completing as part of this module.
Learning Objectives
After completing the module, participants will have the knowledge and skills to:
- Describe the rationale of the interdisciplinary approach to feeding problems
- Identify when an interdisciplinary approach is needed
- Describe the roles of each team member
- Determine what feeding team resources are available locally

Review of Feeding Problems

Let's take some time to review feeding problems. In order for successful eating (or feeding) to happen, all of these components are necessary:

- Delayed or slow development
- Prematurity, conditions that cause psychomotor retardation
- Increased tone, e.g., cerebral palsy
- Decreased tone, e.g., Down syndrome
- Persistence of primitive reflexes
  - Tonic bite, tongue thrust, ATNR
- Craniofacial Anatomic Problems
  - Poor lip closure and open bite, malocclusion, clefting of the lip and/or palate, micrognathia, macroglossia
- Uncoordinated sucking, chewing, and swallowing mechanisms, leading to gagging, choking, and coughing.
  - Disordered cerebral control, e.g. CP
- Peripheral problems, e.g. Bell’s palsy or Mobius syndrome
Behavioral Problems
Unpleasant intrusions into the oral cavity (e.g., tubes: nasogastric, oro-gastric, endoscopic), suctioning, bad tasting medications
Unpleasant feeding experiences pain from caries, reflux, naso-pharyngeal or gastro-esophageal, aspiration, force feeding, assertion of independence or autonomy

Decreased Appetite
Constipation, increased secretions, medications, filling up on liquids

Think about how each of these conditions might affect one (or several) of the components of successful eating:

Neurologic problems: CP, traumatic brain injury, neurodegenerative disease
Congenital anomalies: Genetic or chromosomal problems (spina bifida, Down syndrome, cleft lip and/or palate) or metabolic disorders that have neurologic sequelae
Cognitive or behavioral limitations: mental retardation, autism, difficult temperament
Psychosocial issues: vulnerable child, parental stress
Chronic illnesses: Cystic fibrosis, AIDS, malignancies, bronchopulmonary or chronic lung disease
GI Disorders: Inflammatory bowel disease, reflux esophagitis
All of these factors can lead to feeding problems which greatly frustrate caregivers, can lead to strained feeding interactions, which are highly emotionally charged and need to be handled with empathy and sensitivity.

No single care provider can assess and provide intervention for all of the factors involved - requires an interdisciplinary approach.

Many children do not trust that feeding is safe and won’t hurt...they may need therapy to address their fear and anxiety

Children who have received intervention for the reason for their food avoidance may still keep maladaptive feeding behavior & may need interdisciplinary intervention to support more positive feeding experiences

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**An Interdisciplinary Team Approach is Needed When:**

- Child has multiple, complex feeding issues, including more than one of the following: oral-motor, medical, nutritional, behavioral
- Child has tried other uni-disciplinary feeding interventions (e.g., occupational therapy, or nutrition alone) without long-term success
- Multiple service providers have given the family conflicting recommendations

**Using a Team Approach**

What does the team do?

**Video: Angel**

example of feeding team assessment

**Model Feeding Assessment**

- Family brings food to feed child
- Brief interview with family
- Observation of feeding and behaviors of child and parents/caregivers
- Oral motor assessment of child
Model Feeding Assessment (continued)

- Nutrition and growth assessment
- Medical examination
- Team conference
- Discussion and development of plan with the family

Assessment of Feeding Behavior

- Background history
- Observation and Assessment of Child's Feeding Behavior
- Assessment of Caregiver Feeding Behavior

- History of prenatal, birth, hospitalizations
- Early feeding history
- Developmental milestones
- Temperament
- Regulation: sleeping, soothing, toileting
- Previous evaluations

If time is short, the items in the boxes can be skipped or summarized (refer participants to their handout).

Assessment of Feeding Behavior

- Background history
- Observation and Assessment of Child's Feeding Behavior
- Assessment of Caregiver Feeding Behavior

- Cooperates with setup
- Sits appropriately
- Interaction with feeder (e.g., smiles, claps)
- Positive comments about food
- Opens mouth, anticipates food
- Feeds self
- Responds to prompts to continue
- Requests food

These are some positive behaviors

Assessment of Feeding Behavior

- Background history
- Observation and Assessment of Child's Feeding Behavior
- Assessment of Caregiver Feeding Behavior

- Refuses to sit in chair
- Cries
- Splits food out of mouth
- Gags, vomits
- Verbally says “no” to food
- Moves head away from spoon
- Refuses to open mouth
- Puts hands in front of mouth
- Throws food or utensils
- Gags before food is introduced

These are some behaviors that interfere with feeding

Assessment of Feeding Behavior

- Background history
- Observation and Assessment of Child's Feeding Behavior
- Assessment of Caregiver Feeding Behavior

- Eye contact with child
- Positions child appropriately
- Presents appropriate food, utensils
- Prompts child verbally and non-verbally
- Pays attention to child during meal
- Models appropriate eating
Interdisciplinary Approach to Feeding

Assessment of Feeding Behavior
- Background history
- Observation and Assessment of Child's Feeding Behavior
- Assessment of Caregiver Feeding Behavior
- Reminds child to swallow completely
- Paces child at reasonable pace
- Interacts positively during meals
- Praises child for appropriate behavior
- Sets limits on throwing food, leaving table
- Persists

Development of Interventions
- Individualized, specific goals
  - consistent with the child's developmental abilities
  - support the child's existing abilities
  - Family-centered

A family-centered approach is essential. The family is the most important team member. Daily goals need to be supported by the family.

Teamwork
- Multidisciplinary Team
- Interdisciplinary Team

Interdisciplinary Approach to Feeding

Sara is a 4-year old who has spastic quadriplegia. She lives at home with her adoptive parents and several other siblings, most of whom have developmental disabilities. She attends a developmental preschool school 5 days per week. She is able to eat some foods orally (30-40%) and receives a g-tube feeding to meet the remainder of her nutrient needs.

Although (for the most part) Sara’s nutrient needs were being met, her care providers were frustrated…things were moving too slowly. Some of the recommendations were even contradictory.

Sara: An Example of Teamwork (Continued)

Food- and eating-related issues are addressed efficiently, and efforts are streamlined:
- Dad: “Now, I know that we are following the recommendations at school and at home.”
- RD: “We’ve developed more effective interventions, and I am confident that all recommendations are considered.”
- OT: “I know that the foods and skills I am working with are also improving Sara’s nutritional status.”
- Teacher: “I can continue to help Sara learn to eat now that the therapies are manageable”

A meeting was scheduled to discuss the feeding plan for Sara. Everybody had a common goal: adequate intake and increased oral intake. The team discussed options and developed a plan. Therapy was more efficient with everybody involved working together. Now, the team follows up yearly; when schedules get too tight, one member often joins via telephone call.
Using a Team Approach
Who is on the team?

Teams can take different shapes:

Does anybody practice on a formal team now? What about informal?

Models: Examples of Teams

1. RD, OT, RN, family meet together at an Early Intervention center
2. PMD, public health RD, home SLP therapist meet with family individually and then communicate via conference call
3. RD, PHN, school SLP/OT/RN communicate about tube feeding and feeding therapy plan

Obviously, not all of these potential members belong to every team every time, but let’s run through potential roles quickly. Think about teams you’ve been involved in. How have they been the same? How have they been different?

Potential Team Members

- Child’s family/caregiver(s)
- Physician
- Registered Dietitian
- Occupational Therapist
- Speech and Language Pathologist
- Physical Therapist
- Psychologist
- Nurse
- Social Worker
- Case Manager
- Others

Roles of Team Members: Families

- Assessment
  - Describe eating/feeding situation
  - Identify strengths and problems
  - Define goals
- Care Coordination
- Intervention
  - Implement interventions
  - Evaluate ability to incorporate interventions into life
  - Evaluate effectiveness

Roles of Team Members: Physician or Nurse

- Assessment
  - Medical status
  - Medical effects of intervention
  - Need for lab monitoring, other f/u
- Care Coordination
  - Present to team
  - Coordinate assessments, report
  - Facilitate team dialogue and intervention planning
  - Follow-up with family, PCP, other service providers, referrals
- Intervention
Roles of Team Members: Registered Dietitian

Assessment: growth/body composition, dietary intake: energy, nutrients, textures, fluids, food/medication interactions, other diet-related concerns.

Care Coordination: Communicate with other members, refer to community services.

Intervention: Recommend dietary changes, evaluate effectiveness.

Yaroslav is a 2 ½ year old boy with autism. He lives at home with his parents, and in the same neighborhood as a large extended family. His family emigrated to the US about 5 years ago from the Ukraine. His parents speak some English, but usually prefer to have an interpreter present during medical visits. He is in an early intervention program where he receives speech and occupational therapy.

Yaroslav’s family is worried about his nutritional status. He is a very picky eater, eating only a few foods; he has tantrums at the table, so often just grazes during the day.

Yaroslav’s EI program is interested in developing a plan to increase the variety in his food pattern. The teacher and behavior therapist are working on a behavior plan, and the OT suggests that nutrition input would be important. The team remembers that Yaroslav is on WIC, so they call the RD at the local WIC clinic. How could the WIC RD be involved?

Assessment: other diet-related concerns include constipation, allergies...

Intervention: Recommend dietary changes, considering nutritional status, feeding skills, activity level, caregiver capabilities.

Roles of Team Members: Oral-Motor Specialist (OT, PT, SLP)

Assessment: neuromuscular function, sensory responsiveness, developmental and oral reflexes.

Care Coordination: Communicate with other members, refer to community services.

Intervention: Recommend oral motor sensory interventions, considering oral motor competencies, behavioral supports.

Roles of Team Members: Psych/Social Professional

Assessment: behaviors, attitudes in relation to food and eating through interview, observation.

Care Coordination: Communicate with other members, refer to community providers, refer to services and service systems.

Intervention: Ongoing therapy.

This is an important piece of the feeding team.
Juliana is seen yearly at the neurodevelopmental clinic at Phoenix Children’s Hospital. The WIC RD notices that Juliana’s feeding skills are delayed and contacts the RD at the neurodevelopmental clinic. A feeding evaluation is scheduled and Juliana begins to receive therapy from the Neurdev clinic.

This is an example of an interdisciplinary approach to feeding interventions. This type of feeding group could take place in an early intervention program, therapeutic pre-school, or even in an elementary school setting, as well as the hospital-based program shown here.

Show video segment of Chloe (5 minutes) if there is enough time.

Parents were motivated and eager for help Chloe’s growth and development had caught up enough so that she could participate in the behavioral program. The family, nutritionist and psychologist worked closely together to monitor progress, revise goals, handle set-backs. The therapists were available to answer questions from the parents and provide support, the parents took the responsibility of implementing the program.
Case Study

What went wrong?

- Previous uni-disciplinary therapies did not work
- Previous recommendations had been conflicting and confusing for parents
- Lactose intolerance and small gastric capacity interfered with progress on oral feedings
- Ultimately successful because of family-centered team approach

What feeding team resources are available in your community?

Conclusion

- Resource sheet
- Post-test and evaluation

Review “Resource” handout

Review local resource handout, if you have prepared one, or discuss and generate a list of local resources.

Ask the participants to complete the post-test and evaluation form and turn them in to receive their certificate of completion.