INTRODUCTION TO THE SOS APPROACH TO FEEDING PROGRAM (Sequential-Oral-Sensory)

The SOS Approach to Feeding is a Transdisciplinary Program for assessing and treating children with feeding and weight/growth difficulties. It has been developed over the course of 30 years through the clinical work of Dr. Kay Toomey, in conjunction with colleagues from several different disciplines including: Pediatricians, Occupational Therapists, Registered Dietitians, and Speech Pathologists/Therapists.

This program integrates motor, oral, behavioral/learning, medical, sensory, and nutritional factors, and approaches in order to comprehensively evaluate and manage children with feeding/growth problems. It is based on, and grounded philosophically in, the "normal" developmental steps, stages and skills of feeding found in typically developing children. The treatment component of the program utilizes these typical developmental steps towards feeding to create a systematic desensitization hierarchy of skills/behaviors necessary for children to progress with eating various textures, and with growing at an appropriate rate for them. The assessment component of the program makes sure that all physical reasons for atypical feeding development are examined and appropriately treated medically. In addition, the SOS Approach works to identify any nutritional deficits and to develop recommendations as appropriate to each individual child's growth parameters and needs. Skills across all developmental areas are also assessed with regards to feeding, as well as an examination of learning capabilities with regards to using the SOS program.

SOS APROACH TO FEEDING: BASIC TENETS

TENET 1 = Myths About Eating interfere with understanding and treating feeding problems.

TENET 2 = Systematic Desensitization is the best first approach to feeding treatment.

TENET 3 = "Normal Development" of feeding gives us the best blueprint for creating a feeding treatment plan.

TENET 4 = Food Hierarchies/Choices play an important role in feeding treatment.

TENET 5 = Children learn best through PLAY. Therefore, the most effective Feeding Therapy uses Play-With-A-Purpose to teach new skills.

ASSESSMENT/DIAGNOSTIC PHASE:

The Assessment Phase of the program usually begins with a direct referral from a child's Primary Care Physician. However, referrals from individual therapists in the community, early childhood interventionists and/or programs, preschools, schools, other medical specialists, and/or parents are also accepted. (The referring party is always encouraged to attend the assessment with the family.) The child's Primary Care Physician is then contacted to notify him/her about the referral request.

A Trans-disciplinary team consisting of a pediatrician, psychologist, occupational therapist, speech pathologist and dietitian observe the child eating with his or her primary care givers in a Clinic setting. Families are asked to bring other family members who may be typically present at a meal if possible. Families are also asked to bring the plates, bowls, utensils etc. that the child usually uses at home to the evaluation. The goal is for the family to bring with them items to help the child feel as comfortable as possible in a clinic setting. The Clinic setting with the Transdisciplinary Team has become the preferred setting for the initial evaluation over the years of developing the program for the following reasons:

1. In order to fully and correctly evaluate a feeding problem, the Team believes it is necessary to have all of the Team members present at the assessment at the same time. Frequently, the children referred to Dr. Toomey have had a prior evaluation by only one discipline in the past. When the child is assessed by the Team, there is often some other aspect of the feeding problem which has not been identified and is the reason for the child not progressing as expected/desired.

2. The evaluation with Dr. Toomey takes place over the course of 1 day in the Clinic setting, with the Families receiving a written copy of the assessment and recommendations by the end of the appointment. If all 5 of the members of the Team were to each see the child separately in a home or clinic setting at different times/days, significant scheduling difficulties would be encountered. As a result, the full evaluation could take several weeks to complete. Having all the Team members completing the assessment together gives the Family at least an initial plan within a short time period.

3. The Clinic setting allows all 5 of the Team members to simultaneously evaluate the child and family using a One Way Mirror. When we attempted in the past to put all 5 Team members in the same room with the child while they were supposed to be eating, the child either cried and did not eat or watched us and did not eat. The one way mirror allows the Team to actually get a close look into the child's mouth without the child being intimidated by having someone stare at them. It also removes the Team members enough to allow the family to behave more typically than if 5 strangers were actually in the room with them. The Team is aware that the Clinic setting cannot replicate the home and always asks the parents how typical this feeding session in the Clinic was compared to a home feeding.

TREATMENT PHASE

Based on the Initial Feeding Assessment, a child may be assigned to Individual Feeding Therapy, Group Feeding Therapy, given home programming with phone follow-up, or returned to the Community for treatment. When a child is already receiving feeding therapy with another provider, the preference is to return that child's treatment to that provider with the additional recommendations/program given by the Transdisciplinary Team. The treatments and recommendations are, of course, given/conducted in close contact with the child's primary care physician.

Treatment of the feeding problem(s) with Dr. Toomey always uses the SOS Approach to Feeding Program. However, the basic structure in which the program is implemented depends on the child's age and individual needs.

1. For children who are *less than 18 months of age*, the program is structured as an "individual" therapy session. An "individual" therapy session to the Team **always** includes the **child and at least one parent**, and the therapist. The parent is in the therapy room eating with their child and the therapist at each treatment session.

2. For children *older than 7 years of age*, the program is structured using an adaptation of the SOS Program (called the "Food Scientist Adaptation") and may take place in an individual session or in a peer feeding group. Whether or not the child is placed in a peer group is dependent on the number of other same aged peers with similar issues who are currently in treatment in the Clinic. In addition, how well the child functions in, and can utilize, a peer group, is taken into consideration.

3. For children *between 18 months and 7 years of age*, the preferred treatment modality is in a peer group. The preference for this treatment modality is based on several years of treating children in traditional individual therapy sessions, as well as on consulting with parents and teachers, and completing observations of the children in other peer group settings (daycare, preschools, schools).

   We have found that children in this age range respond best to, and make the most rapid progress with, **peer role models with similar issues** (approximately 25% more rapid progress than in individual therapy). As documented in Albert Bandura's seminal work in Social Psychology, children demonstrate more difficulties learning from a role model who is too far advanced in their skills than in learning from peers like themselves.

   When placed in a peer group in which all the other children were eating "normally", children with feeding problems did not make very rapid progress. However, when placed in a peer group with other children who also struggled with similar eating issues, the children with feeding problems learned more quickly how to eat.

   Part of this appears to be because the children in the feeding groups typically had some skills better than their peers and some that were worse. This allowed them to act as a role model themselves with some foods (also allowing for positive reinforcement and increased self-esteem during eating), as well as to watch the other children when encountering a food that was difficult for them. As Social Learning Theory (Bandura) has frequently demonstrated, a role model that is perceived as most similar to oneself and perceived as making mistakes ("being human") is most likely to be imitated. Role models perceived as too different from oneself or too "perfect" are less likely to be imitated.

   The latter also explains why in this age range, the children appear to do a better job of watching and imitating their peers than grown-ups, (parents or therapists). Socially in this age range, they are very interested in their peers.

PEER FEEDING GROUPS:

There are several advantages to completing a peer Feeding Group in the Clinic setting vs. a daycare or other more natural peer setting, including:

1. Access to a wider variety of therapeutic foods which can be specifically prepared to meet the therapy needs of the children in the Group. This is quite difficult to do in a home setting without adding considerable expense to the family. The selection and preparation of the foods can also be time consuming and takes the parent away from their child.

2. The one way mirror allows the parents of the children to objectively observe their child's eating skills and behaviors, without having to simultaneously track and manage everything going on during a meal. The SOS Program utilizes a mental health person or other professional behind the one-way mirror with the parents to facilitate parents learning how to:

    - Become better observers of their child's behavior without having to be involved in that behavior:
    - Objectively evaluate their child's skill level with various foods so they can make better food choices for their child;
    - Understand the ways in which children learn to eat and to not eat so that they can determine what their role may have been in contributing to the feeding problems;
    - Carry out the feeding program in their home setting where they do have to manage all the pieces themselves.

3. The mental health person also creates a parent support group environment behind the mirror, so that parents can talk about the experience of living with a child who has feeding problems (decreasing social isolation). In addition, the mental health person helps the parents examine their own issues with feeding and/or their child/home/spouse etc. which may be interfering with following out the program in their home.

TREATMENT DESCRIPTION:

1. Each session begins with a set routine; perceptual preparation, sitting stability exercises, breathing and oral-motor exercises, hand washing, description/teaching about the food.

2. Therapists next work on the children's' oral-motor and perceptual deficits through the choices of the foods made, and the way in which they are presented (tastes, sizes, textures, shapes, colors, consistency, temperature).

3. The children are advanced up a detailed hierarchy of 32 steps to eating with each new food presented. Therapists interact with the food and children in a way to help the children achieve each of the 32 steps from a skill standpoint.

4. Positive social reinforcement is used to support mastery of each step on the 32 steps to eating hierarchy. Social reinforcement is used as it is the most natural type of reinforcement for eating and allows for the best carryover of the program into the home environment.

5. Range of foods at each step on the hierarchy is worked on first, because our work has demonstrated that range drives volume. If needed, volume of food ingested is also directly worked on. However, internal research indicates that the children in our Feeding Group program gain 1 pound and 1 inch, on average, across the 12 weeks of Group sessions. This is in a group of children who typically have not gained any weight or height for the 3 months prior to enrolling in the treatment program. In addition, these children consume an additional 200 calories per day, on average, after 12 weeks of Feeding Group sessions.

<u>The program format is essentially the same whether a child is being seen in a Feeding Group, or in Individual Feeding Therapy.</u>

<u>DISCHARGE CRITERIA:</u>

1. Child will readily initiate tasting a new food when presented, 80-90% of the time.

2. The child will have 30 different foods in his/her food repertoire. 10 of these foods will be proteins, 10 starches and 10 fruits/vegetables. This number of foods is needed in order for a child to go through 2 full days without repeating a food; 5 meals each day with a protein, starch, fruit/vegetable being presented at EACH meal. This feeding schedule is necessary to provide for adequate nutrition for young children, and to prevent food jagging. Our internal research has demonstrated that children with significant food jagging problems also typically have significant problems with weight gain, growth, and nutrition.

3. Child will achieve a weight/height growth curve appropriate for their age and medical condition. They will also demonstrate that they can stay on this curve for 3 consecutive measurements, taken every 2 weeks.

4. The child will be able to eat age appropriate foods without gagging, vomiting, or battling with their parents.

5. Child will be able to take in adequate amounts of fluids via an age appropriate container, in order to sustain hydration and to support growth.

Please feel free to contact us with any questions you may have about the program, or if additional information is needed for clarification.

Kay A. Toomey, Ph.D.

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