SOS APPROACH TO FEEDING - Fact Sheets

for health professionals (in response to previous conference attendees questions)

Note:
These information sheets are intended for health professionals who have attended an SOS Approach to Feeding Training Workshop presented by Dr. Kay Toomey and colleagues. See the Copyright Statement for terms of use.

#1 = What is the main differences between 'family meals' and 'therapy meals'?

Family meals have a different goal than therapy meals.

Family meals focus on the **volume** of food consumed, with exposure to an unfamiliar or unaccepted food as a secondary goal. As part of the SOS 'General Treatment Strategies', it is recommended that at every family meal the family should aim to give a protein, a starch, and a fruit/ vegetable, and everyone should take at least one piece of every food offered. Family meals must include at least one food that that child will eat (i.e. 'preferred' food), as the focus of family meals is on exposing the child to 'non-preferred' foods, while supporting volume of consumption through preferred foods.

Therapy meals focus on **fun exploration** of new foods. The volume consumed is less important. Food hierarchies are an integral part of therapy meals, but are not a part of family meals. Food hierarchies have three components (*nutrition*: a protein, a starch, a fruit/vegetable; *texture*: a Hard Munchable, a Meltable Hard Solid, a puree, and a high-calorie drink; as well as a *sequence* that helps the sensory system shift into accepting each food.)

Family meals are an opportunity to implement the SOS 'General Treatment Strategies'. Therapy meals will be initiated in the therapy sessions. At around session 5-8, the goal will be to have the family try one therapy meal at home sometime in the coming week.

Family meals:
In general, you can begin family meals with the following in mind:

- Try to have meals (and snacks) at a scheduled time, so that everyone knows what to expect. Remember, we learn best with structure.
- Give a verbal warning prior to mealtimes (e.g. 5 mins until dinner).
- Introduce a transition activity (e.g. washing hands at sink).
- Sit at the table.
    - Check the child's seat to make sure they are positioned appropriately (90 degrees at the hips, knees, and ankles – check that there is back support and something for them to rest their feet on).
    - It may be useful to make a change to where people sit at the table, to change the visual environment, and avoid negative cues towards eating that may have been formed previously.
- Serve up the family meal to everyone at the table.
    - Everyone has to take some of each of the foods offered (although the child may need a 'learning plate' for placement of the non-preferred foods).
    - Try to offer 1 vegetable/ fruit, protein, starch (and a nutritious drink).
    - Make sure there is at least 1 of the child's preferred foods, so that they have something to eat.
    - If the child is mostly tube fed, try to offer the tube feeding at this time (to establish the relationship between mealtimes and feeling full).
- Eat.
    - Adults should focus on being good social role models.
    - The child should not be the focus of the meal, but praise should be given for any good attempts at eating or exploring the food (through sight, interaction, smell, touch, taste, eating).
- Clean up.
    - Have everyone empty their plate into a bowl/ the bin.
    - Wash hands.

- Remember: The aim of family meals is to expose the child to positive role modelling around eating and to establish mealtime routine, as well as to support oral volume.
- If older children refuse to come to the mealtime, you may consider implementing the rule that if they won't re-fuel their body with food they need to re-fuel their body by taking a rest (in their bedroom, without distraction – i.e. on their bed, no light, no noise).

Therapy meals in therapy sessions

During feeding therapy sessions, children are actively encouraged to explore new foods and expand their food repertoire using systematic desensitisation (the use of competing relaxation responses during exposure to a graduated hierarchy of stimuli known to cause anxiety – i.e. food), social modelling, and positive reinforcement.

- Preferably, therapy occurs in group sessions with other children. If this is not possible, the parent and the therapist act as role models.
- Sensory preparation.
    - Calming/ jazzing exercises (including proprioceptive input).
    - Marching into therapy room.
- Starting routine.
    - Sit in assigned chair.
    - Blow bubbles (for deep breath relaxation).
    - Wash and dry hands.
    - Pass out plates and napkins.
- Feeding.
    - Offer a hierarchy of foods (including a protein, fruit/ veg, starch, puree, hard munchable, dissolvable hard solid – linking each food by its colour/ shape/ texture).
    - The child is praised for all levels of interaction with the food (sight, interaction, smell, touch, taste, eating).
    - The child is never forced to eat.
- Clean up routine.
    - Indicate that eating is all done.
    - The child helps throw (or blow) away any left over food and clean the table.
    - The child washes and dries their hands.

- Remember: The aim of therapy meals is to help the child learn how to explore foods, so that they can expand their food repertoire and try new foods without become distressed. Volume is not the primary goal.

Therapy meals at home

After several weeks (5-8) of therapy meals in therapy sessions, families should try start implementing therapy meals at home.

- Try 1 therapy meal at home a week at first. This can later be increased to 2, then 3 times (every second day).
- Choose a meal where the child usually doesn't eat as much, as the focus of therapy meals is more about learning about the food than eating.

#2 = Some families tell us they don't like their children to get 'messy' during meals.
Here are some comments about the importance of exploring foods

- Looking at food, interacting with it, smelling it, touching it, and tasting it are all steps towards eating it (see SOS 'Steps to Eating' diagram).

- As with any developmental activity (walking, talking, earning to ride a bike), children learn to eat best through purposeful play.

- We can learn a lot about a food by looking at it (size, colour) and by touching/ smelling/ interacting with it (whether it is hard or soft, how easy it is to break, whether it is wet or dry, whether it has a big smell or a little smell, whether is it is sweet/ savoury/ salty/ bitter). This can help to prepare us for how to go about eating it.

- When we allow a child to play with food, we should be talking to them about what it looks like, what it smells like, what it feels like etc (using positive terms). This will help them to learn about the food. Remember, it is play with a purpose.

- We need to learn how to eat before we learn manners. Often things we interpret as poor manners (fidgeting in seat, leaning on elbows at the table, touching food, moving food around on the plate) are a sign that the child is having difficulty with the act of eating. We need to look at why the child might be displaying these behaviours and how we can help them with these skills.
    - The child might fidgeting in seat/ leaning on elbows at the table because they are not positioned properly, and we may be able to help by putting phone books under their feet and putting a non-slip mat under their bottom.
    - The child touching food/ moving food around on the plate may not know how to eat that food, and we may need to help them by cutting up the food into smaller pieces and showing them how we put the food on our back teeth for chewing.

- Remember also, we can have different goals for different meals. In some meals, when we are offering a familiar food, the goal may be to offer an age-appropriate volume of the food and to work on mealtime manners. In other meals, when we are offering new foods, the goal may be to expose the child to the new food and demonstrate to them how to eat that food.

- Think about the last time you went to a new restaurant – especially one that served food that you were not familiar with (such as a new ethnic restaurant). You need a lot of information about the food that you order before you are willing to try it. You might order something because it has ingredients that you like (we use this concept in purposeful play, by using a graded sensory hierarchy). You might visually inspect the food when it arrives to see if it looks appetizing, or smell it to see if it smells delicious. Children explore their foods in a similar way, but if their visual or olfactory (smell) systems do not give them enough information, they may need to touch the food, or "play" with it, to see how it acts/works.

#3 = Here are some suggestions about how to provide sensory preparation before feeding sessions

- Proprioceptive input can override most other sensory input (tactile/ vestibular/ auditory/ visual/ olfactory), so can be used to help children who needing 'calming down' (i.e. those with low thresholds for sensory input - hypersensitive) and those who need 'jazzing up' (i.e. those with a high threshold for sensory input – hyposensitive)

- Proprioception tells us where various parts of the body are located in relation to each other. Proprioception relies on feedback from muscles and joints.

- Some ideas are below:
    - Schedule therapy after physical activities
    - Tape cardboard 'lily pads' to the ground, and have the child jump on them like a frog
    - Play hopscotch
    - Have the child march like they are in the army or in a marching band
    - Have them jump on a rebounder, if you have access to one
    - Have the child bang on a drum
    - Have the child roll out play dough, and squash it into the table
    - Have the child sit on the floor with their feet and hands outstretched. You sit opposite them and do the same. Play 'row, row, row your boat' or tug of war with a tea towel.

#4 = What is the difference between flooding and systematic desensitization and between positive and negative reinforcement?

In psychology, desensitization involves the use of competing relaxation responses (e.g. deep breathing, play) during exposure to a graduated hierarchy of a stimulus known to cause anxiety. The aim is for the person to stay calm as they progress through the small steps towards the end goal. If the person starts to get distressed, the therapist should move back a step in the hierarchy and re-establish calmness before trying to move forward again.

Flooding involves exposing a patient to vast amounts of the feared stimulus. It is expected that the patient would initially be very anxious, but it is hoped that the anxiety will decrease over repeated exposures.

- Flooding begins at the 'end' and assumes the child will eventually 'get the skills' to be successful. Flooding uses the assumption that a person cannot maintain a high level of anxiety for extended periods of time. However, if the child does not have the skill to complete the task, then 'anxiety' is not the only problem and flooding is not the answer.
- Systematic desensitisation allows the therapist to continue evaluating the child with every exposure, and assumes the therapist and child will work together to build the skills within the child to become successful.
- Remember the analogy: If you want to teach a child to swim, flooding would encourage you to throw the child in to the water and assume they will figure out how to get to land. Systematic desensitisation would encourage you to bring the child to the water, encourage them to put their toes in the water, then their feet, legs, bottoms, body, arms, shoulders, and finally their face, before moving them off the surface and into open water.
- Also, it is important to remember, that distress evokes an adrenalin response, and that this adrenalin response will generally suppress hunger to some degree. Therefore, it is best to avoid distress during mealtime interactions.

Reinforcement = any response to a behaviour that causes an increase in the probability of that behaviour occurring in the future.

Positive reinforcement = Responding to a behaviour by *adding a desirable stimulus* that causes an increase in the probability of that behaviour occurring in the future.

- Eating + praise/ attention = more eating
- Not eating + praise/ attention = more 'not eating'

Negative reinforcement = Responding to a behavior by *removing a noxious/ undesirable stimulus* that causes an increase in the probability of that behaviour occurring in the future.

- Response prevention programs (or negative reinforcement programs) provide an undesired stimulus and, when the child engages in the desired behaviour, the undesired stimulus goes away.
- If you make a child sit in a chair and put a spoonful of food in front of their mouth with the instruction to "take a bite and then you can get out of the chair" you are using negative reinforcement (increasing the behaviour of eating by removing the undesirable consequence of having to stay in the chair).
- If the child refuses to take a mouthful and is 'forced' to take the spoonful, this would be positive punishment of the refusal behaviour. To avoid the positive application of the undesired consequence, the child will decrease their refusal behaviour (punishment).

- If a child takes a mouthful of food by them self and you praise them, this is positive reinforcement. Because you added a desired consequence (positive), they are more likely to take another bite (reinforcement).

- If you put a spoonful of food in front of a child's mouth with the instruction to "take a bite and then you can play with the toy", you are using both negative reinforcement (removing the undesired action of having a spoon held to your mouth) and positive reinforcement (adding a desired opportunity to play with the toy).

- Many people think this sort of approach is just 'positive reinforcement'. But notice, negative reinforcement means to 'take something away to increase the occurrence of the behaviour'. If the child knows that the spoon will stay in front of their mouth until they take a bite, they may take a bite to make the spoon 'go away' and to escape the situation.
- Stated another way...
- If a child is presented with a spoonful of food and takes a bite to make the spoon go away, this is negative reinforcement of the biting behaviour. To remove the undesired consequence of having the spoon held at their mouth (negative) they increase the behaviour of biting (reinforcement).
- If the child then swallows the mouthful to get a cheer or a turn at a toy, this is positive reinforcement of the swallowing behaviour. To get the desired consequence (positive), the child increases the behaviour of swallowing the food (reinforcement).

Behaviours can be <u>adaptive or non-adaptive</u>. Eating is an adaptive behaviour, except when eating causes pain or discomfort. Children who avoid eating because it causes them pain or discomfort are trying to escape pain – something we would all call adaptive.

Consequences can be <u>desirable to the person or non-desirable</u>. What is desirable to you, may not be desirable to someone else (e.g. a type of food, a type of smell, loud music, fast moving rides). Adding a desirable consequence or removing a non-desirable consequence increase the chance of the behaviour occurring again, so are forms of reinforcement. Removing a desirable consequence or adding a non-desirable consequence decrease the chance of the behaviour occurring again, so are forms of punishment.

<u>Punishment</u> = any consequence following a behaviour that causes a decrease in the probability of that behaviour occurring in the future.

- Positive means 'to apply', so positive punishment means applying an undesirable consequence following a behaviour to promote less of that behavior.
    - If a child gets praised for good eating, that is a positive reinforcement for eating.
    - If a child is yelled at while eating ("Why aren't you eating more?" "How come you never eat what I make?" "Stop touching your food"), that is a positive application of a undesirable response, so decreases the likelihood of the behaviour (eating) occurring (punishment – a decrease in the behavior)
- Negative means 'to remove', so negative punishment means removing a desired response to promote less of that behavior.
    - If a child gets to eat ice cream for dessert when they don't eat anything else for dinner, that is a positive reinforcement for refusing to eat anything.
    - However, if the child does not eat anything for dinner and the option of ice cream (desired response) is removed (negative) that will lead to less refusing of dinner (punishment – a decrease in the behavior).

Eating is supposed to be an enjoyable, social experience.

It is important to remember that distress evokes an adrenalin response, and that this adrenalin response will generally suppress hunger to some degree. Therefore, it is best to avoid events that cause distress during mealtime interactions. Providing structure/ routine, clear instructions, and consistent responses are the best ways to minimize distress. Also, remember to give positive reinforcement for adaptive/ desirable behaviour.

Teaching a child how to explore and evaluate new foods will help them to work out how to go about eating new foods, and minimize the fear of the unknown (neophobia). For healthy eating habits throughout life, we want children to eat a range of different foods. To do this, we need to talk them through the process of exploring new foods (e.g. talk about what it looks like, smell, touch, texture, size).