

Food for Thought

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Many feeding aversions don't exist simply in and of themselves. They're often secondary to sensory or motor issues.

Imagine walking into your home, smelling a turkey cooking in the oven. Your stomach growls in response, and you start to salivate. You look forward to an enjoyable experience and can't wait for dinner.

But for many of the clients we work with, mealtimes are anything but enjoyable. For some children, in fact, they're absolutely frightening.

Over the years, we received countless referrals for children who reportedly had behavioral feeding aversions. The vast majority of these clients, however, had feeding aversions or behavioral feeding issues secondary to sensory or motor issues.

Many times, strict behavioral intervention programs may not recognize or treat the sensory or motor etiology of feeding disorders. But to help these children, we need to evaluate the true causes of the feeding disorder and use a team approach. This team may include physicians (i.e., a pediatrician, developmental pediatrician, family doctor, gastroenterologist, neurologist, psychologist), an occupational therapist, a speech-language pathologist and a nutritionist. Individually, the clinicians should address the areas that directly lie within their areas of expertise.

For example, physicians must address the underlying medical issues that interfere with a client's ability or willingness to eat by mouth. The occupational therapist should address underlying sensory concerns that affect the child's ability to function. And the speech-language pathologist, while contributing to the understanding and treatment of oral sensitivities, focuses on the oral motor skills that support safe and effective feeding. Together, the occupational therapist and speech-language pathologist help develop a sensory diet that respects a client's taste, texture and temperature preferences. In concert with this, the nutritionist designs a diet that provides adequate caloric and nutritional intake while respecting a client's sensory needs.

When all these professionals come together, they can address the complex problems that often underlie behavioral feeding aversions as the following case studies show.

- Jason is a 5-year-old boy with a diagnosis of pervasive developmental delay. He is extremely hypersensitive to high-pitched sounds. As his mother

begins the preparations for dinner, Jason puts his fingers in his ears and begins rocking back and forth. The hum of the microwave and the buzz of the blender increase the intensity of Jason's protests.

Jason screams as his parents try to put him in a chair for dinner. Although the child's pediatrician suggests he has behavioral issues, a more accurate assessment may be that Jason's hearing sensitivities are so significant that the kitchen is an unpleasant place for him.

Jason's initial intervention plan included intensive sensory integration therapy, as well as auditory integration training. Meals were prepared while Jason was at school. Extraneous environmental noise was reduced during mealtime, and metamusic was played at a low level. In addition, the family ate in the dining room rather than in the kitchen, since the visual and auditory environment was less stimulating to Jason. As his hearing sensitivities decreased, so did the behavioral issues that had negatively affected mealtime.

- Sarah is a 10-month-old baby girl. Initially, she had trouble with bottle-feeding, which required several nipple and formula changes. She has a history of gastrointestinal reflux, which was addressed with position changes and thickened formula. Eventually, it resolved with medication.

She also was a difficult baby to calm and required complicated routines for bathtime, dressing/ undressing and bedtime. At 6 months, rice cereal was introduced into her diet. Sarah gagged and spit up. Although her parents tried a variety of baby cereals, fruits and vegetables over the next few months, Sarah's reaction was generally the same.

Her parents were advised to give her time; doctors assured them that Sarah would get used to food. And they weren't overly concerned because the child's weight continued to stay on the charts. But her parents were frantic.

Through a sensory diet program, we discovered that Sarah's reaction to baby food was different if we changed the temperature of the food. For example, we put applesauce in the freezer 15 minutes before we presented it to her. Cold temperatures often increase awareness of food in the oral cavity, and, in turn, provide increased information to the oral musculature.

In Sarah's case, the cold temperature enhanced the input of the bland, lukewarm baby food. In addition, the

increased information encouraged lip closure on the spoon and facilitated more effective tongue retraction to move the bolus back in the oral cavity. Sarah actually enjoyed the mealtime experience.

- Alexandra is a 2-year-old girl with Down syndrome. She reportedly did fine on a bottle and with pureed foods. But when solid foods were introduced, at approximately 9 months, Alexandra had repeated incidents of gagging and choking.

Initially, she would try any solid foods presented, but she reportedly became a picky eater. By 15 months, she would only eat crunchy, salty foods, such as Goldfish and crackers, and pureed foods. She would sometimes put a solid food she deemed acceptable into her mouth, suck on it and push it out with her tongue.

As I observed Alexandra eating, I noted that her primary pattern continued to be a suckle with pureed foods and solid foods. She explored other high-taste foods by suckling to experience the flavor and then pushing them out of her mouth with her tongue.

I suspected that Alexandra was afraid to eat solid foods. She didn't have the motor skills to chew food effectively because of low muscle tone, as well as reduced strength and mobility in her jaw, lips, cheeks and tongue.

Alexandra's initial therapy program focused on teaching her to chew and enabling her to handle solid foods safely. We accomplished this by changing the size, shape and presentation of the food bolus, while continuing to respect Alexandra's taste preferences. As Alexandra learned to chew, other food textures became safe and acceptable to her, not just highly flavored, salty foods.

In all of these case presentations, sensory and motor limitations contributed significantly to the feeding aversion. Families and therapists frequently give children with special needs foods they don't have the motor skills to handle or foods that don't address their sensory deficits. Children often respond by gagging, choking and throwing up. The subsequent learned reaction is to refuse to eat these foods.

Well-meaning therapists and families are so concerned with nutrition that they miss the underlying issues that limit a child's ability or willingness to eat. The practice of force feeding clients is another factor that contributes to behavioral feeding problems. The message we give children is I am bigger than you and I can make you eat. The result is a lack of trust in the therapist or caretaker. And in my experience, force-feeding rarely provides a long-term solution to making mealtimes safe and enjoyable.

Our clients cannot always communicate their needs effectively, and we may miss subtle communication

attempts, such as Jason covering his ears to indicate his discomfort with the noise during meal preparation. As these case studies show, the diagnosis of feeding aversion or behavioral feeding problem does not always adequately represent the issues.

A comprehensive feeding evaluation must include assessing motor and sensory skills. Adequate respiration and postural stability are your first considerations, since stability in the body will support mobility in the mouth. Then, assess oral phase skills, such as lip closure, tongue retraction, tongue bowling, tongue lateralization and tongue tip elevation.

A five-day baseline diet, analyzed in terms of taste, texture and temperature, should serve as an initial exploration of a client's sensory preferences. Focus your therapy plan on facilitating the motor skills children need to handle feeding. Make sure they slowly explore taste, texture and temperature variables, with only one change made at a time.

In Sarah's case, we changed the temperature of the food bolus while maintaining the taste and texture. If we had not been successful with that variable, we may have tried changing the taste (i.e., adding cinnamon to applesauce) while maintaining the texture and temperature.

Use sensory variables, such as taste and temperature, to facilitate changes in motor skills. As motor development occurs, a client will be better able to handle an increased variety of textures. The client will then become an active participant in sensory exploration and in the feeding interaction.

As these examples show, behavioral feeding aversions often don't exist simply in and of themselves. Many times, underlying issues are at play. As clinicians, we need to figure out what those issues are and address them. In doing so, we help children learn that mealtime can be an experience filled with pleasure, not fraught with fear.

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