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Severe Feeding Problems Secondary to Anatomical Disorders: Effectiveness of behavioural treatment in three school-aged children

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In the present study, behavioural treatment is described of three school-aged children with severe feeding problems caused by (surgically corrected) anatomical disorders of the digestive system. Two children showed food refusal and were tube-fed whereas the third child showed extreme food selectivity. During treatment, shaping, (non)verbal instruction, intermittent contingent attention, and a token economy were effective in eliminating feeding problems in the children. During a mean of 50 sessions of treatment conducted during a period of seven months, each child learned to consume food items orally within a normal speed range. They also learned to accept food items varying in both taste and texture. Each child's caloric needs were met as a result of total amount of food consumed. The following are discussed: (1) the results of treatment; (2) consequences of participant age for treatment choice; (3) the necessity of recording during treatment sessions; (4) the shortcomings of existing systems of classification of feeding problems.

Feeding problems are relatively common in nondisabled toddlers and preschoolers. Prevalence of feeding problems in this group varies between 25 and 40% (Mayes & Volkmar, 1993). In a study by Reau, Senturia, Labailly, and Christoffel (1996), parents rated feeding problems of their very young children (toddlers) as mild; not always being hungry at mealtimes (52%), refusing to eat after a small number of bites (42%), and strong preferences for specific food items (33%) were mentioned by parents as being of concern. Severe feeding problems have low prevalence in this group (1–3%; see Butler & Golding, 1986; Dahl & Sundelin, 1986; De Moor,

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Didden, & Korzilius, submitted). By contrast, severe feeding problems are frequently seen in children with physical (26–90%) and/or intellectual disability (23–43%) and in those born prematurely and/or small for date (Crist et al., 1994; Douglas & Bryon, 1996; Palmer, Thompson, & Linscheid, 1975; Reilly, Skuse, & Poblete, 1996; Thommessen, Heiberg, Kase, Larsen, & Riis, 1991).

Severe feeding problems can be categorized in several ways. For example, Kerwin (1999) distinguishes the following categories: (1) disruptive eating behaviour; (2) refusal to eat independently; (3) problems with transfer from liquid to solid food; (4) oral-motor immaturity or dysfunction; (5) aspiration problems or problems with swallowing; (6) frequent food expulsion; (7) food refusal; and (8) food selectivity.

In the present study, three school-aged children are described who showed food refusal (two children) and food selectivity (one child). Children with food refusal orally refuse to accept all (solid) food. They may need tube-feeding to ensure sufficient nutritional intake. Next to children who exhibit food refusal, some children may show food selectivity whereby they orally accept only a highly restricted range and quantity of food items (in terms of type, taste, and/or texture of food). Selectivity may vary from mild to severe and, in severe cases, may eventually result in malnutrition, growth retardation, dehydration, and an increased vulnerability to infectious diseases (Kedesdy & Budd, 1998). In cases severe and chronic, this type of feeding problem may be labelled as "extreme food selectivity". Most, if not all, parents of children with feeding problems report feelings of incompetence and emotional distress.

The present study assesses the effects of a behavioural treatment package on oral food intake in three five- to seven-year-old children who visited a regular school. Feeding problems in these children may be categorized as "feeding problems secondary to anatomical disorders" (Chatoor, 2002). The anatomical disorders resulted in malfunctioning of the digestive system at an early age. At the time of referral to the rehabilitation centre, two children showed food refusal and were being fed via a gastrostomic tube (g-tube). The third child showed extreme food selectivity. Prior to behavioural treatment, medical factors that could be responsible for the severe feeding problem in each child were ruled out.

Method

Participants

T was a five-year-old girl born with galgangatresia that was surgically corrected when she was 1.5 months old. In due course, functioning of the liver progressively deteriorated, as a result of which a transplantation of the complete liver was performed at the age of 3.5 years. At referral to our rehabilitation centre, her average daily oral food intake was 1213 kcal and was far below the age level for girls (1526 kcal). Next to this, feeding itself went slowly. Her daily average food intake consisted of four slices of white bread with much butter and chocolate spread or peanut butter; now and then she ate a cracker. She consumed 150 ml yoghurt and 750–900 ml of orange

squash daily. Since the age of one, she had fiercely refused to eat porridge, warm food, fruit, and custard. At referral, her length was 104.7 cm (*SD* between –2 and *SD*–1) and she weighed 14.8 kg (weight compared to height: *SD*–2). During a period of one year her increase in weight was only 0.9 kg (norm = 2 kg) and all measures suggested that she suffered from malnutrition. Both her parents and paediatrician reported that she had gastroenterological complaints. Items of the Child Behavior Checklist (CBCL; Achenbach, 1991) related to abdominal pain, vomiting, and soiling (faeces) were scored as occurring often. At the start of treatment, T attended a regular primary school and showed normal school progress.

M was born with a defect of the sternum (breastbone) and multiple angioma's (blood vessel tumours) of the face, neck, lungs, trachea, and intestines. The trachea defect necessitated a tracheostomy with tracheostomy tube, which was removed when M was four years old. By the time of her referral to our centre at the age of four, M had not yet learned to accept food orally. Almost all food was given to M via g-tube at 1350 cc, 1 kcal/ml daily. Orally M accepted only custard (50 g), mashed fruit (50 g), and a small number of sips of milk or fruit juice at a total amount of 131 kcal/day, as a result of which her caloric needs were met (total amount of 1481 kcal/day, compared to the norm of 1450 kcal/day). She weighed 19.5 kg and measured 109 cm (height by age SD between 0 and –1; weight by height SD between 0 and +1). There were no gastrointestinal complaints except for the occasional consumption of custard and mashed fruit which almost always resulted in gagging and vomiting. During treatment M attended a regular primary school despite a very mild developmental delay.

N was born with a partial chromosome 22 trisomy as a result of which she had a cleft palate, stenosis of the trachea (for which she had a tracheostomy until she was three years 10 months old), reflux, intestinal malrotation, anal atresia (congenital absence of anus) and dysplasia of the kidney. At the age of six years eight months, at intake to our centre, it was concluded that she had never consumed food orally. This was attributed to frequently occurring illnesses during her first year of life. Oral food intake had been difficult since due to a combination of trachea stenosis and cleft palate. She was almost completely dependent upon tube-feeding (1450 cc, 1 kcal/ml daily). She typically consumed soup containing vermicelli, 1 small pieces of carrot (100 ml), sweets and potato chips, and/or orange squash (total = 277 kcal/day). She gagged upon being given food items orally, but seldom vomited. According to normative standards, N needed 1322 kcal daily and she was given 1727 kcal on daily average. At referral her weight was 17 kg and she measured 117 cm (height by age between SD–1 and –2; weight by height between SD 0 and –1. Scores on the CBC checklist indicated that she sometimes complained of abdominal pain, diarrhoea, and obstipation. N had mild developmental disability and at the start of treatment she attended a special school for learning-disabled children.

Setting and Materials

Treatment was conducted in a therapy room of the rehabilitation centre. Sessions were held two to three times a week and lasted about 60 minutes. During treatment

Table 1. List of rules

Rule	Yes/No
1.	Child and therapist have engaged in free play before meal
2.	Child has assisted in preparing the meal
3.	Child has fed herself independently
4.	Child has consumed all foods of the warm meal
5.	Child has consumed all fruits
6.	Child has consumed warm meal and fruit within 15 minutes
7.	Child has assisted therapist in clearing up
8.	Child and therapist have engaged in free play after meal
9.	Child and therapist have jointly completed the list of rules

therapist and child sat opposite each other at a table and the child's face was directed towards a one-way screen. Therapy room and therapist remained the same throughout the baseline and treatment phases. At the end of each treatment phase, parents were instructed on how to implement procedures. Parents then carried out procedures in the child's home. Materials that were used at home and rehabilitation centre were plate and cutlery, drinking cup, list of rules (see Table 1), stopwatch and/or hourglass, digital scales, microwave, and magazine.

Dependent Variables and Reliability of Recording

Data were collected on three dependent variables: (1) percentage of food accepted; (2) eating pace; and (3) SD for weight by height and for height by age. Following each session, percentage of food accepted was calculated by dividing the total amount of grams of food consumed by the total amount of grams of food presented, multiplied by 100. A score of 100 indicated that the child had orally consumed all foods presented to him or her. Reliability checks on percentage acceptance were conducted in 10% of all sessions and were equally divided across phases of treatment and children. Mean inter-rater reliability between therapist and a second observer of food acceptance was 100% and calculated by number of agreements divided by total number of trials.

Following each session, eating pace was calculated by dividing the total number of seconds by total number of grams of food accepted. Mean inter-rater agreement between therapist and a secondary observer of eating pace was assessed in 10% of the sessions and was 97%. Percentage of agreement was calculated as above.

Design

For each child, data were collected within an AB design with follow-up. During probe sessions food items to be trained in the final stage of treatment were presented to each child. Probe sessions were held immediately prior to a new treatment phase.

The criterion for increasing the amount (g) or texture of food presented was a mean of 85% food acceptance during four consecutive sessions and a mean eating pace below 20 minutes. If food texture was increased during treatment, the amount of this new type of food was identical to the amount at the beginning of the previous step. Generalization sessions started upon attainment of the aim of the first treatment phase (see Parent Instruction section below). During follow-up, treatment procedures were faded out in a stepwise manner.

Functional Assessment

Prior to baseline, a functional assessment of feeding problems was conducted for each child. Functional assessment refers to a range of procedures used to identify antecedent and consequent variables that control problem behaviour in natural environments. Interviews were conducted with each child's parent(s), medical reports were analysed, dietary data were collected, the Motivation Assessment Scale (Durand & Crimmins, 1988) was administered, and ABC analyses (Bijou, Peterson & Ault, 1969) were performed on videotaped mealtime situations in the children's home settings. Based on the results of functional assessment, it was hypothesized that T's extreme food selectivity was maintained by negative reinforcement. Her target behaviours, that resulted in extreme food selectivity, were reinforced by escape and avoidance of the request from parents to consume most food items. It was also hypothesized that her food selectivity was positively reinforced by parental attention as selectivity almost always resulted in a conversation between T and her parents, something that she apparently enjoyed. It was hypothesized that the target responses shown by M and N were maintained by negative reinforcement; both children showed symptoms of fear contingent on being presented with food. Thus their target responses not only resulted in escape and avoidance of food, but also in escape and avoidance of the fear associated with the presentation of food. Both children had learned to associate food with unpleasant physical discomfort (such as choking) due to anatomical disorders. For example, because N's cleft palate was not closed completely at the start of treatment, food returned via her nose, which was a highly unpleasant experience for her. She could avoid this by refusing to consume food.

Treatment

The first aim of treatment for each child was oral acceptance of a variety of foods with which caloric needs were fully met. This entailed removal of tube-feeding for M and N. A further aim was to decrease mealtime duration in the home setting to a maximum of 20 minutes. [In a related study, De Moor et al. (submitted) found that average mealtime duration in a normative sample (n = 422) of young healthy school-aged children who lived at home with their parent(s) was about 20 minutes.] Finally, we aimed at growth normalization (N) or maintenance of current SD scores (M and N).

More specifically, treatment of T was aimed at daily oral acceptance of warm meals that varied in taste. Such meals consisted of vegetables, meat, and potatoes

(150 g, normal texture, not blended), and yoghurt, custard, or fruit (75 g dessert; total amount = 225 g). Another aim was partially to replace orange squash with intake of a nutritional drink (at least 100 cl). With M, the aim was consumption of 150 g of foods such as vegetables, meat, fish, potatoes, and fruit that were of a texture suitable for eight-month-old children. The food's texture was finely to coarsely blended and contained small pieces that did need to be chewed. Additionally, M had to learn to drink 50 m of Ensini (nutritional drink) daily. The aim of treatment for N was the consumption of 100 g of an unblended warm meal (without dessert) containing a variety of tastes. She also had to learn to eat sandwiches with butter and filling. During all sessions, T and N used cutlery independently while M had to be fed.

Procedures

Prior to the start of treatment, the rules of the treatment (Table 1) were explained to the child. It was essential to assess whether the children were sufficiently motivated to learn to accept food orally. It became clear that all three children were highly motivated to participate. Two treatment sessions a week were scheduled for T; three weekly sessions were held for M and N. Each session lasted 60 minutes and each session was divided into three parts, lasting about 20 minutes each – 20 minutes of treatment were embedded in two 20-minute periods of free play.

The treatment package consisted of several behavioural techniques. The first technique was shaping, which consisted of a stepwise increase in the amount, taste, and texture of food presented. For T, shaping consisted of increases in the amount of solid food (that is, a complete meal with unblended food) as well as an increase in the variety of tastes (throughout all steps). Increases in the amount of food within the same texture (i.e., unblended food) occurred in five steps: (1) 40 g; (2) 60 g; (3) 100 g; (4) 150 g; and (5) 225 g. For M, shaping consisted of increasing food texture from liquid to finely-coarsely blended, and (within a specific type of food texture) increasing the amount of food and variety of tastes (throughout all phases). Increases in texture and amount of food occurred in three phases: (1) first we provided a warm meal of Olvarit, which is suitable for six-month-old children, and dessert – Step 1 50 g in total, and Step 2 75 g in total; (2) porridge – Step 1 25 g, and Step 2 50 g; and (3) Olvarit eight-month warm meal or fruit – the steps were 50, 75, 100, 125, and 150 g. For N, the shaping procedure was identical to the shaping procedure for M. Increases in texture and amount occurred in two phases: Phase (1) soup – Step 1 50 ml, and Step 2 75 ml; and Phase (2) warm food with in steps – 10, 25, 50, and 100 g. Following Phase 2, N learned to eat sandwiches with butter and filling. The steps were: 10, 20, 40, and 50 g (from small pieces of a sandwich to a whole sandwich).

Verbal and nonverbal instruction. Verbal instructions were given to encourage specific types of eating behaviour and could consist of asking a question such as, for

example, in case of dawdling:"T, which piece of meat are you going to prick with your fork?" Also, it was explained to the child how the digestive system operates. For example: "T, if you consume this piece of potato, it will travel to your stomach and from then on to your intestines." Finally, in case of gagging and protracted chewing, instructions were given to encourage the child to show specific eating behaviours, such as: "T, now you must chew the food!" or "T, now please swallow the food!" Nonverbal instructions, pointing to the hour glass or stopwatch, were used to prompt the child to increase her eating pace.

Intermittent contingent attention. Food acceptance was occasionally (variable ratio-3) followed by verbal (for example,"T, that's great!") and/or nonverbal attention (for example, eye contact).

Token economy. A list of rules was used (see Table 1), and immediately following a treatment session the child could earn a point for each rule that she complied with during that session. She was rewarded with a small token if she had earned at least 7 points during a session; if a child had attained 7 points during two (with T) or three (with M and N) sessions within a week, she received a large sticker. During the generalization phase, M could earn eurocents (in stead of stickers) that she put in her money box.

All disruptive behaviours (such as crying, kicking against the table, or diverting the therapist by means of initiating a conversation) during treatment aimed at escaping from or avoiding the mealtime session were ignored by the therapist.

Parent Instruction

Parent instruction began after the aim of the first treatment phase was attained and consisted of generalization and fading out. Generalization occurred in two steps. The first step was carried out in the rehabilitation centre and both parents were instructed how to implement the treatment techniques. Using videotaped treatment sessions, they were informed about the techniques. Also, they were trained in the implementation of the techniques during six sessions: observing a therapy session through a one-way screen and therapist provides feedback (two sessions), conducting a treatment session under the close supervision of the therapist who provides feedback (two sessions), and conducting a treatment session with the therapist observing through the one-way screen (two sessions). During the second step parents were instructed to implement the techniques in the home setting and feedback was provided during therapist home visits and by telephone.

The aim of fading out treatment techniques was for the child to participate during mealtimes in the presence of all family members. Fading out began after completion of the final treatment phase at the rehabilitation centre, provided that generalization was successful in terms of consumption index and eating pace.

Results

Child T

One aim of T's treatment – consumption of a variety of warm foods and dessert totalling 225 g – was attained after seven months and 60 treatment sessions (see Figure 1). This result was maintained during follow-up three months after treatment was completed. At follow-up, caloric intake was 1525 kcal (1714 kcal is advised, based on the Schofiel-formula). T accepted a relatively wide variety of food items, such as eight types of vegetables, five types of fruit, and several types of meat and potatoes. The other aim of treatment, daily consumption of 100 ml of the nutritional drink, was attained as a result of treatment at the rehabilitation centre; however, this effect was not maintained during the generalization phase. The consumption of nutritional drink was replaced by the consumption of two to three mugs of milk daily. As can be seen in Figure 1, T frequently gagged until the 34th session, which was attributed to frequent presentation of new food items during this phase of treatment, especially vegetables and fruit. However, gagging disappeared after the 34th session.

Compared to baseline, the child's eating pace increased as a result of treatment (see Figure 2). During generalization sessions the mean duration of meals decreased

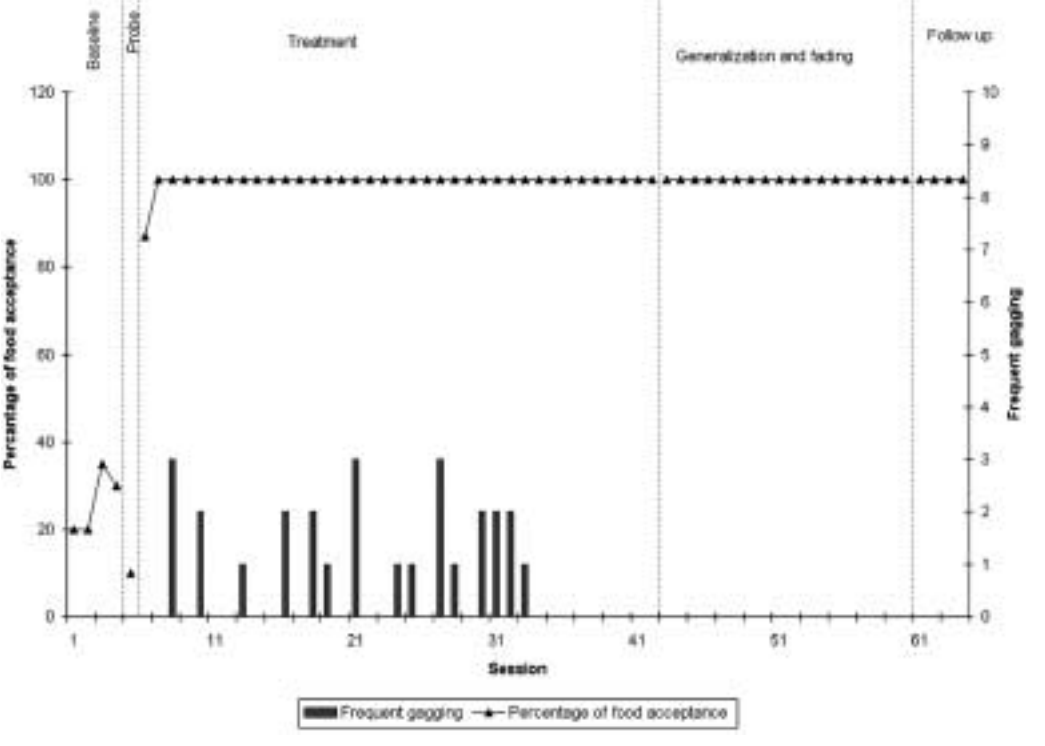

Figure 1. Percentage of food accepted and frequency of gagging during conditions of baseline, probes, treatment, generalization and fading and follow-up (Child T).

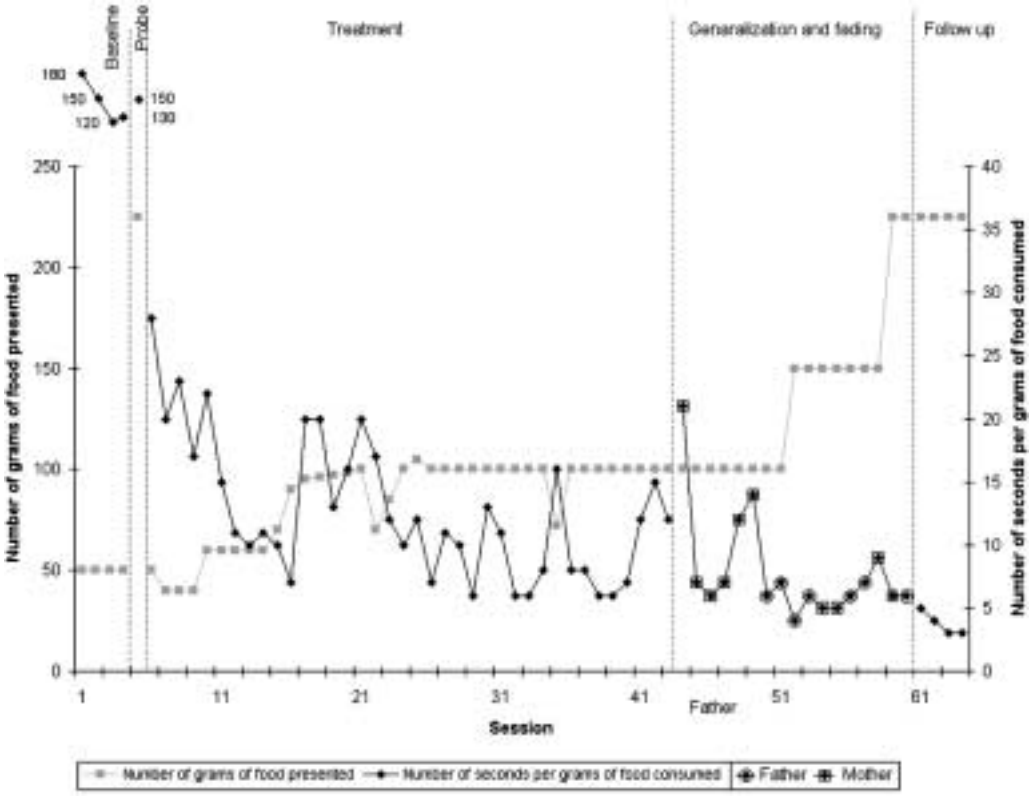

Figure 2. Eating pace (seconds per gram of food accepted) and number of grams of food presented during conditions of baseline, probes, treatment, generalization and fading and follow-up (Child T).

to below 20 minutes, with a further decrease to a mean of 15 minutes during follow-up. Eating pace increased concurrently with a stepwise increase in the total amount of food presented. Eating pace suddenly decreased when the child's father (during session 50) and mother (during session 45) fed the child for the first time. Finally, at the age of six years 10 months, nine months after follow-up, her height was 114 cm (SD between –1 and –2) while she weighed 19 kg (weight by height SD between 0 and –1) which indicated a normalization of her weight compared to her height.

Child M

The aim of treatment with Child M – consumption of 150 g of Olvarit eight-months (baby food) with a variety of tastes – was attained after eight months and 112 treatment sessions, of which 71 sessions were conducted in the home setting (see Figure 3). This effect was maintained at follow-up during which M's oral caloric intake was 1480 kcal (age norm = 1400) and tube-feeding was discontinued. As a result of treatment, M had learned to consume all types of finely to coarsely blended foods (texture

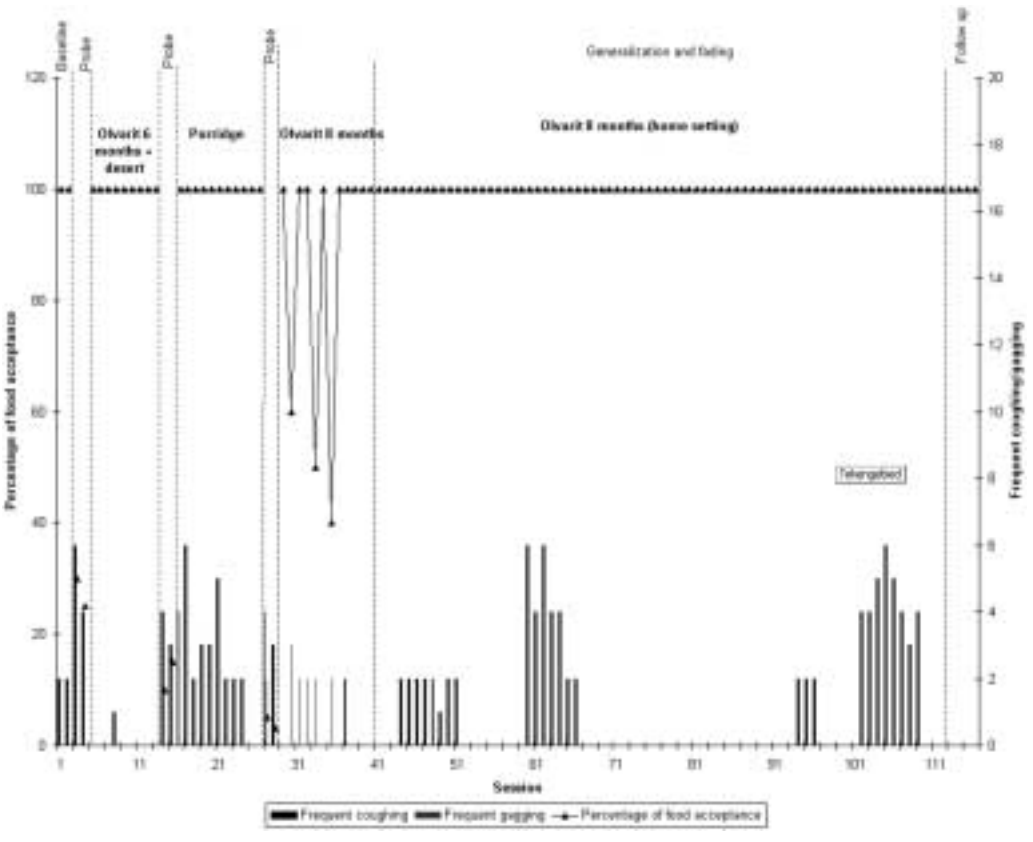

Figure 3. Percentage of food accepted and frequency of coughing and gagging during conditions of baseline, probes, treatment, generalization and fading and follow-up (Child M).

of Olvarit eight-months). The variety of food consisted of nine types of vegetables, five types of fruit, and several types of meat, fish, pasta, and potatoes, among others. The second aim of treatment, daily consumption of 50 ml of Ensini, was attained as a result of treatment and this effect was maintained at follow-up. As can be inferred from Figure 3, M coughed during all phases of treatment, although frequency of coughing was highest at the beginning of the treatment condition. Coughing was attributed to frequent bronchitis as a result of secretion of mucus in her trachea. Her gagging during Sessions 30 to 35 could be explained by the fact that she was presented finely to coarsely blended food (Olvarit eight-months) for the first time.

As can be seen in Figure 4, the child's eating pace (number of seconds/number of grams consumed) increased considerably during treatment. Mean eating pace at home during generalization and follow-up was 3.4 and 1.9 s/g, respectively. Mean eating pace during baseline (Sessions 1 and 2) and the Olvarit eight-months treatment (Sessions 29–41) was 13.4 and 27.4, respectively. This effect was found while total amount of food presented/consumed showed a stepwise increase. By consequence,

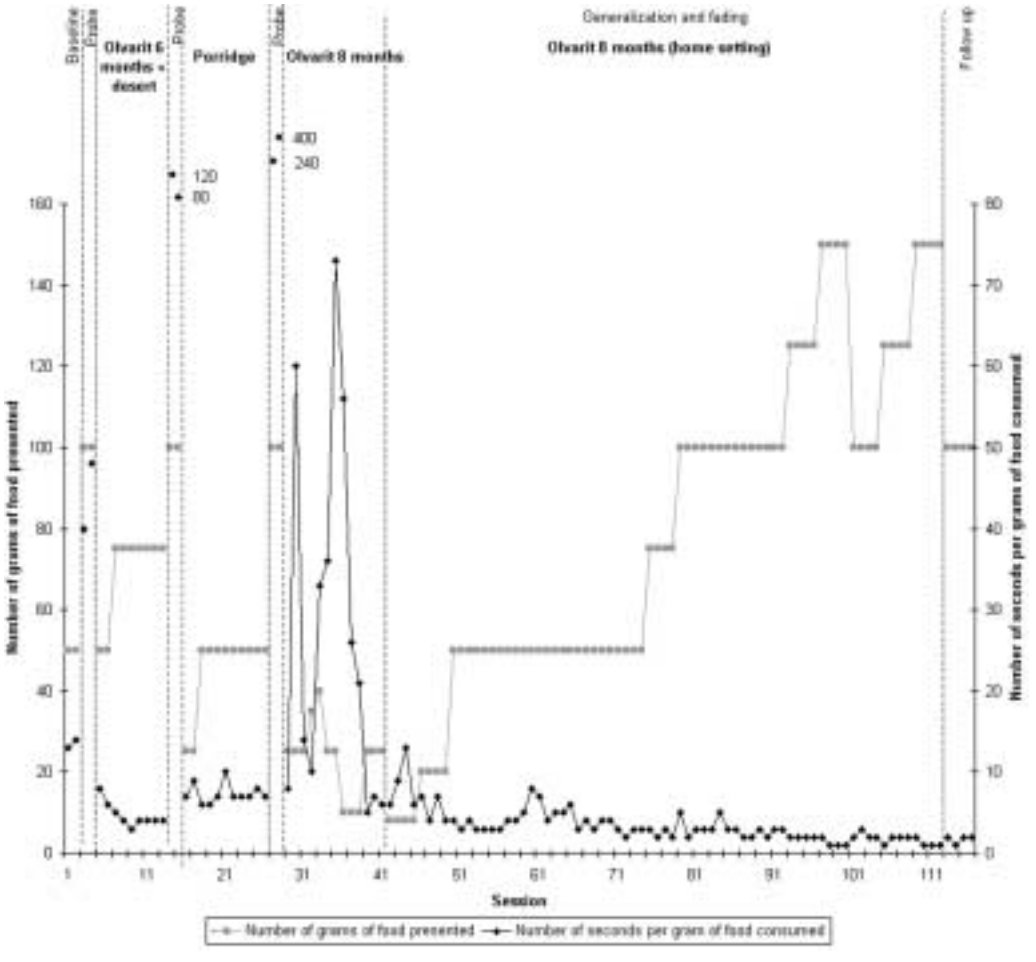

Figure 4. Eating pace (seconds per gram of food accepted) and number of grams of food presented during conditions of baseline, probes, treatment, generalization and fading and follow-up (Child M).

mean duration of meals was below 20 minutes as a result of treatment, with a further decrease to seven minutes during follow-up.

At the age of six years three months, three months after follow-up, M's height was 117 cm (height by age SD between 0 and –1) and she weighed 21 kg (weight by height SD = 0). Compared to baseline, M's height as well as weight according to age norms had remained unchanged, despite complete reduction of tube-feeding.

Child N

Results depicted in Figure 5 show that the two aims of treatment with N – consumption of 100 g of warm food with normal texture (unblended) and of a variety of

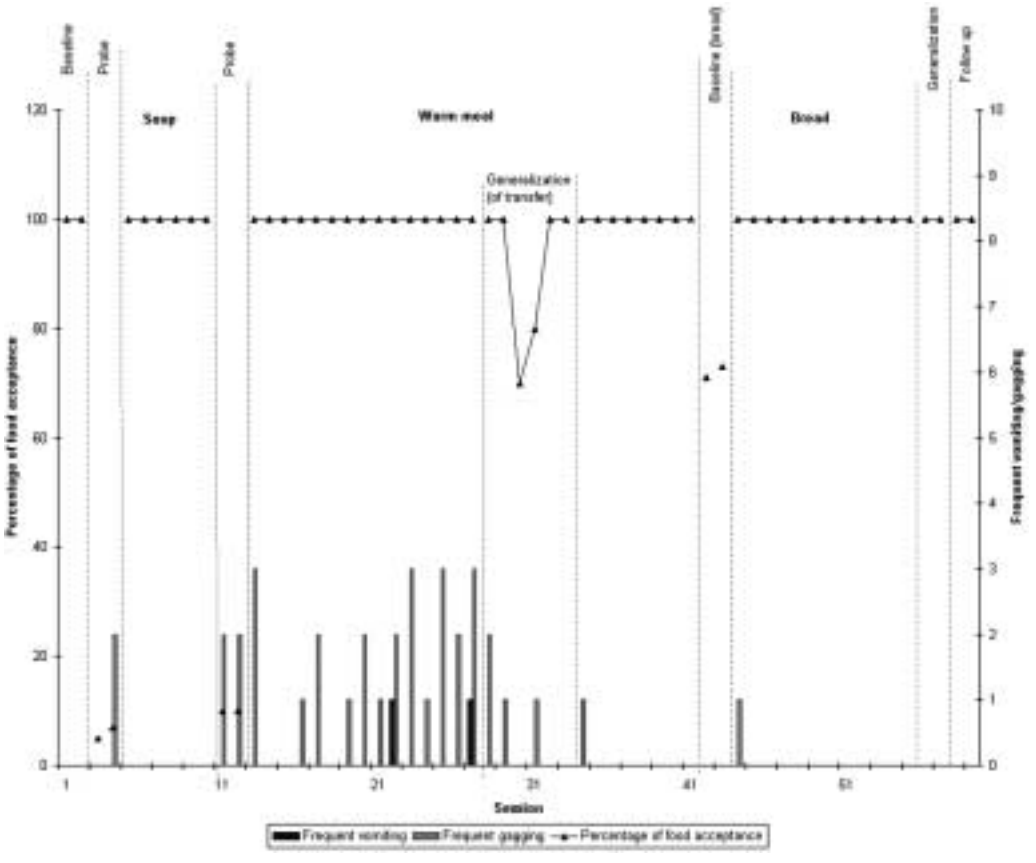

Figure 5. Percentage of food accepted and frequency of vomiting and gagging during conditions of baselines, probes, treatment, generalization and follow-up (Child N).

tastes as well as a sandwich with butter and filling – had been attained at the end of a 7-month treatment and 55 sessions. As a result, tube-feeding was discontinued. These effects were maintained during follow-up. However, data on caloric intake were not collected, although N's mother reported that her daughter had a healthy appetite and showed good growth. Percentage of food acceptance showed a decrease when her mother conducted treatment at the rehabilitation centre (Sessions 31 and 32). N relatively often gagged during Sessions 13–34 and she sometimes vomited. This was attributed to her being presented new food items.

Figure 6 shows that the child's eating pace increased considerably during each phase of treatment (that is, soup, warm meal, bread). Mean eating pace during consumption of 100 g of warm food was 7.9 s/g during generalization and follow-up. During phases in which a warm meal was presented, mean eating pace was 62.8 s/g. In consequence, mean mealtime duration remained below 20 minutes throughout each phase of treatment, with a mean of 12.5 minutes during follow-up. As was the

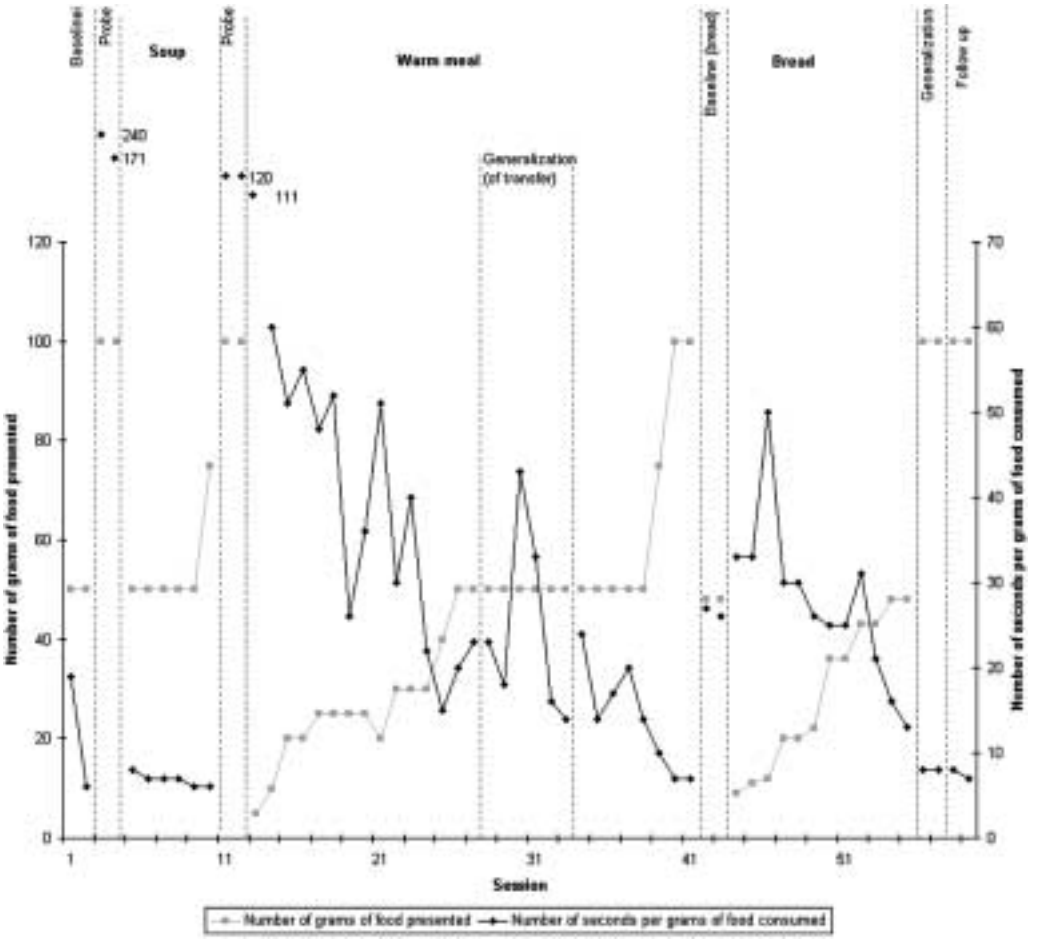

Figure 6. Eating pace (seconds per gram of food accepted) and number of grams of food presented during conditions of baselines, probes, treatment, generalization, and follow-up (Child N).

case with T and M, increase in eating pace occurred while total amount of food increased in a stepwise manner.

Data on height and weight at follow-up (three months) are lacking. However, according to her mother N showed good growth and normal appetite. It may be assumed that SD scores for height by age and weight by height at follow-up did not differ from SD scores assessed at the start of treatment.

Discussion

Results of the present study show that chronic food refusal and extreme food selectivity in three school-aged children of five to seven years of age were successfully treated using a treatment package that consisted of shaping, (non)verbal instruction,

intermittent contingent attention, and a token procedure. Feeding problems in each child originated from anatomical disorders that were surgically corrected. However, despite surgical and medical intervention, these children continued to accept only a highly restricted range of foods or refused all foods. Over an average of about 50 treatment sessions and during a mean treatment period of seven months they learned to accept orally a variety of food items (in terms of food texture, taste, and amount) during regular meals. At the end of treatment, each child's caloric needs were met, as a result of which tube-feeding could be discontinued. These results were maintained in the home setting during follow-up. In two of the children (M and N), the g-tube was removed shortly after follow-up. Also, T did not complain anymore of gastrointestinal discomfort (abdominal pain, obstipation, vomiting) at follow-up.

The effectiveness of the treatment suggests that feeding problems were maintained by negative and/or positive social reinforcement. Although feeding problems in these children were initially caused by adverse medical conditions (anatomical defects, frequent illness, and/or oral-motor defects), food refusal behaviours and food selectivity were maintained by social conditions and conditioned anxiety. Furthermore, each child had only limited or no experiences with oral consumption of food. T's food selectivity was maintained by the successful escape from and avoidance of nonpreferred food items. At the same time, food refusal resulted in increased parental attention and presentation of preferred food items. By showing food refusal behaviours M and N had learned to avoid being presented with food orally. As a result, an unpleasant sensorical experience (which had lead to conditioned fear of food) could be avoided.

The behavioural treatment of these feeding problems required many sessions. It is important to (reliably) to record data on a range of relevant dependent variables during each session. Careful and systematic observation and recording facilitates timely decisions about how to intervene in case of oral-motor and/or gastroenterological problems such as choking, gagging, coughing, and/or vomiting. These data are important for determining the cause if the treatment progress stagnates and for timely consultation with a paediatrician. For the same reasons, it is important to monitor the child's health status – including frequency of defecation, use of medication, and occurance of intermittent infectious diseases – throughout all phases: baseline, treatment, and follow-up.

The choice of treatment procedure depends on the child's chronological age, cognitive level, temperament, level of autonomy, and motivation to participate in the treatment. For example, Didden, Seys, and Schouwink (1999) have successfully used extinction of negatively reinforced food refusal behaviour and positive reinforcement of food acceptance in the treatment of food refusal in a 19-month-old female with moderate mental retardation. She was positioned on the lap of the therapist during baseline and treatment sessions. Such techniques may not be suitable or effective in older children. Techniques such as (non)verbal instruction, complying with rules, drawing attention to the hourglass or stopwatch, and use of tokens may be more appropriate. Also, during treatment older children may sit at a table next to the therapist.

The present study focused on school-aged children who showed severe feeding problems secondary to anatomical disorders. It should be noted that this type of feeding problem is not covered in classification systems such as the DSM-IV and ICD-10. Both classification systems merely describe feeding problems during infancy or early age, and anorexia nervosa and bulimia nervosa in adolescents. There is no mention of feeding problems in school-aged children. In case of children younger than six years of age, another problem arises. Both DSM and ICD exclude feeding problems that are caused by specific medical factors or where there is no weight loss but merely shortages in specific items such as iron, zinc, and/or vitamins. It may be hypothesized that lack of knowledge concerning the treatment of feeding problems in school-aged children is a result of gaps in psychiatric classifications. Conversely, perhaps these feeding problems are not covered in classification systems because of insufficient recognition of them, a finding that is corroborated in several studies (see Nicholls, Christie, Randall, & Lask, 2001).

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