

# **Coaching to Decrease Childhood Obesity**

## **Executive Summary**

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### **Introduction**

Pediatric obesity rates have steadily increased in the United States in the past several decades and healthcare professionals have responded with appropriate concern and clinical attention. However, despite rigorous efforts, obesity remains a chronic condition for many young children. While it is common for practitioners to counsel caregivers of obese children about healthy diet and physical activity, families often struggle to initiate and consistently apply lifestyle changes that would significantly reduce their child's weight. In the field of psychology, behaviorists have long understood that achieving behavioral modification often necessitates discreet trials involving guided rehearsals, and that education and internal motivation alone are typically insufficient for replacing maladaptive behaviors. The emerging field of coaching has demonstrated in numerous applications that coaches can be effective catalysts for behavioral change in people. However, use of a live coaching model has not yet been assessed in the treatment of pediatric obesity. Given the urgent need to intervene and the encouraging empirical foundation of coaching that is developing in behavioral healthcare, this study endeavored to apply coaching science directly to the treatment of childhood obesity.

### **Purpose**

The purpose of the present study was to investigate the efficacy of "Family Mealtime Coaching" which consists of empirically-founded live coaching techniques to reduce maladaptive parenting practices and poor child eating behaviors during mealtime. Coaching was also aimed to increase adaptive and positive mealtime behaviors. The Family Mealtime Coaching model integrates research-based positive psychology interventions to develop healthy mealtime interaction, behaviors, and communication. This paradigm emphasizes division of responsibility, in which the parent selects what foods are available to the child and when the food is served. The child chooses if they feel hungry and how much food to consume. By implementing a division of responsibility, children develop their ability to detect satiation and

parents discover the benefits of offering healthy food choices to their child. To investigate the efficacy of Family Mealtime Coaching (see Figure 1 for the Family Mealtime Coaching treatment protocol) as a viable intervention, the current study utilized a pre-post randomized experimental design to compare Family Mealtime Coaching to a non-coaching treatment-as-usual (TAU).

This study was funded with the support of a Harnish Foundation Research Grant and was awarded by the Institute of Coaching at McLean/Harvard.

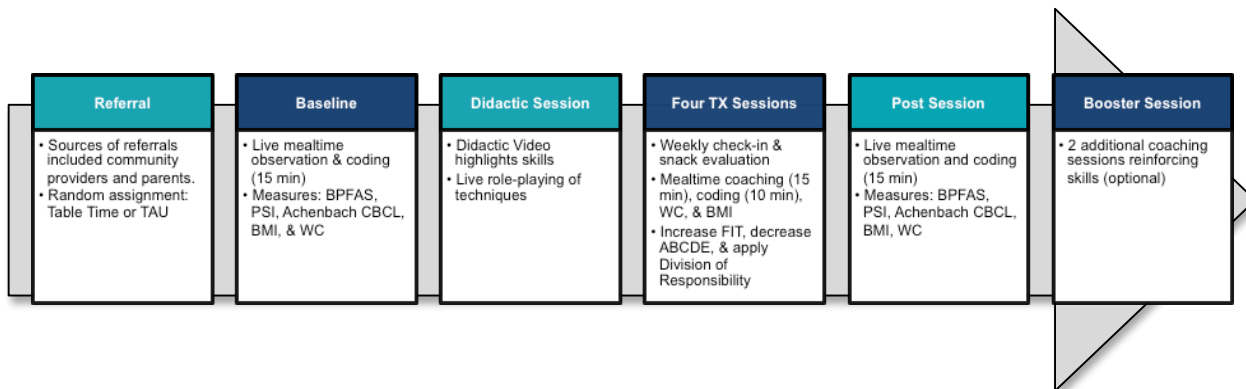


Figure 1. Family Mealtime Coaching Treatment protocol and elements of each phase of treatment. TAU= Treatment-As-Usual, BPFAS= Behavioral Pediatric Feeding Assessment Scale, PSI= Parenting Stress Index, Achenbach CBCL= Achenbach Child Behavior Checklist, BMI= Body Mass Index, WC= Waist Circumference.

## Method

The current study used a pre-post randomized experimental design. Children ages 2-10 with a BMI over the 85<sup>th</sup> percentile were included in the study. Caregivers consented to participate in one of the two treatment conditions (coaching [Family Mealtime Coaching] or no-coaching [TAU]). All live coaching took place through the caregiver who received direct mealtime facilitation from the coach through a wireless earpiece.

The sample consisted of sixty-three children and their caregivers. Thirty-eight of these participants were randomly assigned to Family Mealtime Coaching while 25 were assigned to TAU. Parent/child dyads began treatment during the period of June 2012 and December 2013. The mean age of the children was 6.79 years of age (SD = 2.28), with a range of 2 to 10 years of age. Pre-treatment measurement indicated that the average BMI for children was 23.3 (SD = 4.5), and average waist circumference (WC) was 78.02 inches (SD = 14.5).

The Family Mealtime Coaching condition employed live coaching to guide parents through a mealtime experience at a community mental health facility. From behind a one-way mirror, a Family Mealtime Coaching coach monitored interactions, coded verbalizations and

behaviors, and encouraged positive parent and child communications during a 15-minute mealtime (see Figure 2 for a diagram of the Family Mealtime Coaching room set-up).

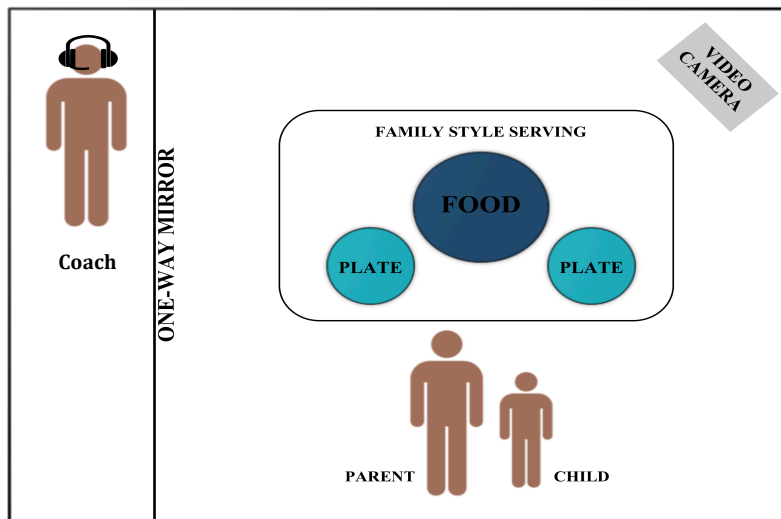


Figure 2. Diagram of the Family Mealtime Coaching treatment room depicting room set-up, food placement, a coach observing behind a one-way mirror, and a parent-child dyad.

Weekly check-ins occurred before each session, during which the coaches asked parents questions regarding the child’s eating behaviors and activities over the past week. Parents were coached through real-time application of the division of responsibility, consisting of strengthening “FIT” skills (i.e., family style serving, intuitive eating, and “table talk”) (see Figure 3) and extinguishing “ABCDE” behaviors (i.e., artificial comments, bribing, coaxing, defining preferences, and emotional eating) (see Figure 4). The coach obtained the child’s measurements at baseline, at the end of each coaching session, and during the post observation in order to calculate body mass index (BMI) and waist circumference (WC).

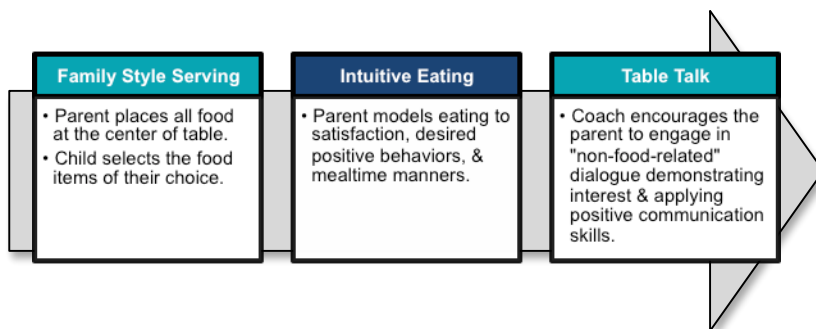


Figure 3. Examples of FIT skills.

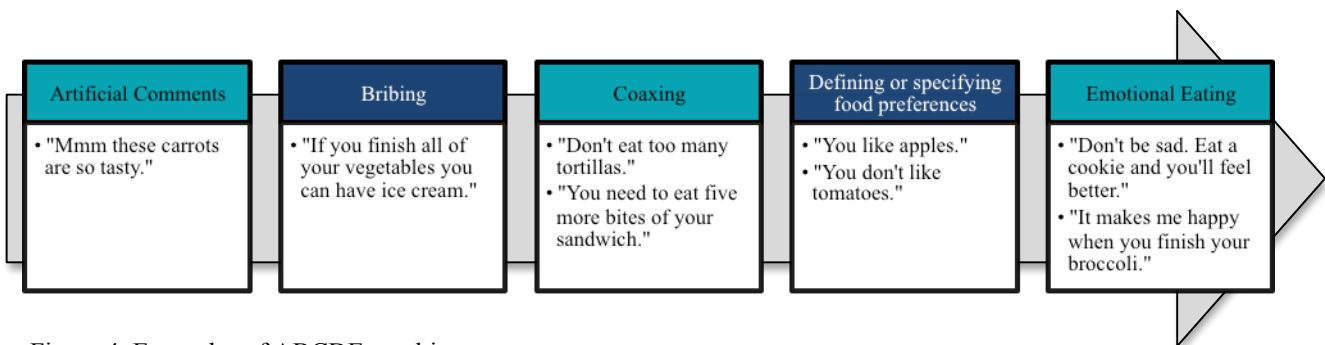


Figure 4. Examples of ABCDE mealtime parent statements.

Children in the treatment-as-usual (TAU) condition received visits with a pediatrician or registered dietitian at Dr. Riba’s Health Club. They attended two to four visits within eight weeks. These visits consisted of nutritional counseling that included assessment, treatment planning, and clinical care – all of which exceed standard obesity treatment. At the end of each TAU visit, the child’s weight and height measurements were obtained and BMI was calculated.

## **Results**

Results revealed significant increases in parents’ family-style serving (“F”), modeling of intuitive eating (“I”), and use of table talk (“T”) during the mealtime. Results also showed significant decreases from pre- to post-treatment in parents’ use of artificial comments, bribing, coaxing, and defining the child’s food preferences. Specifically, at baseline, parents who received Family Mealtime Coaching averaged approximately one artificial comment, one bribe, seven coaxes, and one defining preference during the coding period. Post-treatment, they had nearly eliminated artificial comments, coaxes, and bribes, and had one defining preferences comment. Parents verbalized few emotional associations with food either pre- or post-treatment. Parents in Family Mealtime Coaching condition reported significant reductions in Parental Distress as revealed by the PSI. The TAU condition had a non-significant trend towards reductions in Parental Distress. In addition, results from the BPFAS showed significant reductions in maladaptive eating behaviors in the Family Mealtime Coaching and TAU condition. In regard to CBCL results, there were no significant changes in Internalizing, Externalizing, and Total Behavior Problems for children assigned to Family Mealtime Coaching or TAU. From pre to post, assessments showed that weight gain slowed/stopped for children in the Family Mealtime Coaching condition, which reflects an important health benefit. However, potentially due to the limited length (eight weeks) of the intervention, no statistically significant

reduction in BMI or WC was observed among children assigned to Family Mealtime Coaching or TAU.

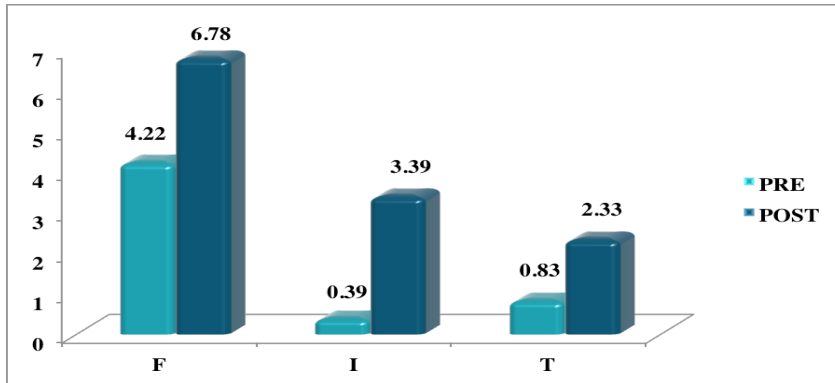


Figure 5. Parents use of “FIT” skills at pre and post treatment. F= Food selection and Family Style Serving, I= Intuitive Eating, T= Table Talk.

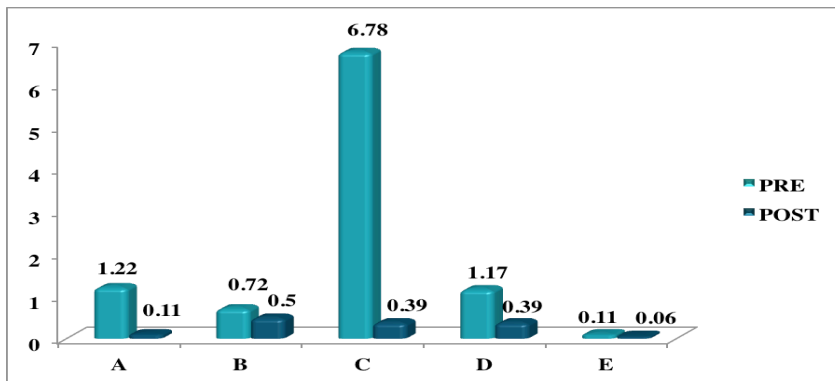


Figure 6. Parents use of ABCDE behaviors at pre and post treatment. A= Artificial Comments, B= Bribing, C= Coaxing, D= Defining Preferences, E= Emotional Eating.

## **Implications**

This study endorses the clinical utility of using coaching methods to promote healthy parent feeding practices and underscores that coaching plays an essential function in the treatment of childhood obesity. Implementation of live coaching can enhance parent feeding practices in as few as four, 15-minute mealtime sessions. Moreover, coaching reduces parental-role stress and enhances overall parenting efficacy. The findings demonstrated that coaches can serve as catalysts for change in treating pediatric obesity. This study further revealed that coaching is an efficacious method to reduce maladaptive mealtime practices (e.g. eating junk food, leaving the table, and tantrums) and increase positive feeding behaviors.