

## Factors Influencing Parents' Eating Behaviors: Insights for Childhood Nutritional Intake

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**Abstract** It is well recognized that parents can directly affect the consumption patterns and eating behaviors of children. The purpose of this study was to examine parents' responses to external factors that influence their eating behaviors. Parents completed a questionnaire that assessed family eating practices and determined factors influencing eating behaviors. Additionally, parents participated in a focus group session designed to dialogue about real-life scenarios related to factors influencing eating practices. Significant findings were revealed through the themes of healthy eating, cooking practices, and eating away from home. Findings also showed the major factors that influence the eating behaviors of parents were time, convenience and conscious choice.

**Keywords** *Nutrition; Child Nutrition; Family Nutrition; Food Choices; Nutrition Patterns*

### 1. Introduction

The parent can be instrumental in controlling the nutritional intake of young children. Many studies have looked at peer environmental and institutional influences. However, the basis for the child nutritional intake is influenced mostly by the parent. It is well recognized that parents can directly affect the consumption patterns and eating behaviors of children through their feeding styles (Patrick, Nicklas, Hughes, Morales, 2005) and ultimately prevent the consequences of childhood obesity. The role the family plays in determining children's dietary intake and eating habits is an important one (Cullen, Klesges, Sherwood, Baranowski, Beech, Pratt, et al., 2004). Children learn about eating from observing the eating behaviors of parents. Therefore, the factors that influence the eating behaviors of parents may prove to be pivotal in changing disordered eating behaviors of young children. The purpose of this study was to examine factors that parents say directly influence their eating behaviors.

## 2. Literature Review

The problem of childhood obesity has reached epidemic proportions. One in four children under the age of 18 is at risk for overweight and 15% are overweight. Preschool children who are overweight or obese will more than likely be overweight or obese as adults (Patrick, Nicklas, Hughes & Morales, 2005). Childhood obesity has both short-term and long-term health consequences including asthma, high blood pressure, psychosocial disorders, osteoarthritis, and adversely effects both glucose and lipid metabolism. This is a serious public health problem. Thus, the discerning question to ask is the following: Where to start to address this raising health problem in children? It is generally recognized that an individual's food consumption patterns begin at an early age. What an individual chooses to eat, portion sizes, and eating frequencies are often established by primary school age. This suggests that a critical area for the development of better nutrition practices is the evaluation of children's food consumption. If we can determine the processes by which children's eating habits are established, we are likely to be able to develop means to modify children towards healthier food choices and eating behaviors. To this, it is essential that we gain a better understanding of the dynamics of the family (i.e., parents or parental figures) and it influences children's food preferences, selections and eating practices.

It is well recognized that parents can directly affect the consumption patterns of children through their feeding styles (Patrick, Nicklas, Hughes, Morales, 2005) and ultimately prevent the consequences of childhood obesity. The role the family plays in determining children's dietary intake and eating habits is important (Cullen, Klesges, Sherwood, Baranowski, Beech, Pratt, et al., 2004). Children learn about eating from observing parents' food choices. Research has demonstrated that two-year old children's food preferences were associated with their mothers' food preferences (Skinner, Carruth, Bounds, & Zeigler, 2002).

The initial setting for a child's exposure to food choices, eating habits, and involvement in physical activity is at home with the family. Research has also shown that two year olds' food preferences are associated with mothers' preferences and parents' beliefs about healthy foods (Patrick et al., 2005). Feeding styles also determine the food choices of young children. Feeding styles represent how the caregiver maintains or modifies children's eating behaviors and have been associated with dietary intake and weight status (Patrick et al., 2005).

The literature indicates that the family plays an important role in affecting children's dietary intake and eating habits (e.g., Cullen, Baranowski, Rittenberry, Cosart, Hebert, & de Moore, 2001; Cullen, Klesges, Sherwood, Baranowski, Beech, Pratt, et al., 2004). The family provides the primary social learning environment for children and the primary setting for exposure to food choices, eating habits, and involvement opportunities for play and other physical activity (Golan & Crow, 2004). Parental influence is a critical determinant of children's food preferences (Benton, 2004) and food intake. Family environmental factors such as parental feeding practices have been related to overweight in children (Stang, Rehorst, & Golcic, 2004).

There are three types of parental feeding behaviors: authoritarian, permissive, and authoritative. Authoritarian feeding includes behaviors like restriction of certain foods and forcing consumption of other foods. In other words, attempting control of the child's eating patterns with little regard for their choices. Permissive feeding allows consumption of favorite foods in quantities determined by the child with little regard to nutritional value. Authoritative feeding involves communicating to children the importance of eating healthy foods but giving some choices about eating options (Patrick et al., 2005). In general, parental control of feeding practices, especially those that are restrictive tend to be associated with decreasing a child's ability to self-regulate food consumption and can cause increased reliance on external cues to dictate an amount to eat (Rhee, 2008).

Because of traditional values, social networks, patterns of inter- and intra-familial support, food preferences and ethnic and socio-cultural perspectives must be considered. Food habits are deeply rooted in a family's culture representing both their ethnic and community identity (McArthur, Anguiabo & Nocetti, 2001). Families must contend with outside influences affecting the availability, accessibility, and selections of preferred foods along with the introduction of new foods and different ways of food preparation.

Parent behaviors can be influential in shaping children's food preferences by frequently exposing them to healthy foods at home and making them accessible (Reinaerts et al., 2007). Parents can also model good eating behaviors and can positively influence their child's eating habits. Some ways to accomplish this are: children and parents eating together and parents consuming healthy foods. Eating meals as a family is positively associated with consumption of fruit, vegetables, grains and calcium-rich foods, vitamins and minerals. McCafferey et al. also report that frequency of family meals may have healthier eating habits. Some habits that may be learned are: learning to eat at a slower pace, learning to follow internal satiety cues, reduced consumption of energy-dense fast foods, and higher consumption of fruits and vegetables compared to those who do not eat regularly as a family.

Understanding children's eating attitudes, behaviors and preferences is important in promoting good health in children (Brown & Ogden, 2004). Likewise, understanding parents' attitudes, behaviors and preferences about eating is equally important in promoting children's good nutrition and health. Although widespread attention is given to the childhood obesity problem in the literature, limited information is known about what primarily influences family's (parents or parental guardians) food preferences and selections and their perspectives on eating behaviors. This gap in knowledge surfaces a particular need to study the factors that influence family's (parents or parental guardians) eating behaviors.

The purpose of this study was to examine parents' responses to external factors that influence their eating behaviors. The study addressed the following question: What are the primary factors influencing parents' decisions related to eating behaviors?

### 3. Methodology

#### 3.1. Participants

The participants were a convenience sample of parents who voluntarily enrolled their young children aged 2 ½ to 5 at a child development laboratory on a university campus in a south eastern community. The total number of parent participants in the overall research study was 39. For the purposes of the present research study, 19 out of 39 parents participated. All of the parents were female (100 %). From parents' self-reports, 95% were Black/African American, 3% were African, 1% was White/Caucasian, and 1% was Latino/Hispanic. More than 86% of the parent participants reported a household income in the range of \$60,000 - \$80,000.

#### 3.2. Measures

The *Family Eating Practices Questionnaire (FEP-Q)* was developed by the researchers of study in the year 2010. It was based on a comprehensive review of the literature, informal clinical parent interviews, and adaptations from the works of Schulundt's (1994) *Situational Obstacles to Dietary Adherence Questionnaire* and Williams and Christensen's (2004) *Diabetes Stepping Up to the Plate: Eating Behaviors Patterns Questionnaire*. The FEP-Q is a 44-item scale using a 5-point Likert scale (1 = strongly disagree; 2 = disagree; 3 = neutral; 4 = agree; 5 = strongly agree). The FEP-Q is designed to assess family eating practices and determine factors influencing eating behaviors. Sample items are: I buy and eat low-fat food products (item 5); On Sunday, I eat a large dinner with my family (item

29); I would rather buy takeout food and bring it home than cook for my family (item 36); When choosing fast food, I pick a place that offers healthy foods for my family to eat (item 39). Validation of the FEP-Q was assessed with a convenience sample of parents (N = 16) for the purposes of determining whether the items are relevant to the intended content. The intended content of the FEP-Q is about eating practices and/or behaviors of parents/families. Parents participating in the validation of the FEP-Q rated each item once by marking “Y” for yes and “N” for no as it pertained to their beliefs of importance relative to family eating practices. The FEP-Q was validated.

### 3.3. Procedures

Parents of young children enrolled at a child development laboratory on a university campus in a south eastern community were recruited for participation in the overall research study. Letters detailing the purpose and procedures of the study were distributed and explained to parents at an evening Parent Teacher Organization (PTO) meeting. Parents were asked to indicate their willingness to participate in the overall research study by completing and returning a consent form. Later, a letter along with the FEP-Q were mailed to parents (N = 39) requesting voluntary participation in the present research study by completing and returning the questionnaire to one of two focus group sessions. The letter explained that parents would receive a \$100.00 gift card at the completion of the 1 ½ hour focus group session and submission of the completed FEP-Q. Out of 39 parents, 19 parents voluntarily attended one of two focus group session and submitted a completed FEP-Q. The focus group session was designed for parents to engage in dialogue about eating practices and their family's decision-making processes of food selections and preferences, and factors that influence food consumption. A case study method approach (i.e., case scenarios) using six (6) real-life case scenarios via a PowerPoint presentation was displayed and read to the parents. Following each narrated case scenario, focused questions (i.e., what are the successes in this situation? What are the concerns in this situation? What are some influencing factors in this situation?) Were posed to generate discussion?

### 4. Results

Data for 19 parents were collected from the 44-question FEP-Q survey. Responses to 16/44 questions shown to be significant ( $p < 0.025$ ) are given below (See Table 1).

**Table 1:** Summary of Significant Responses from Family Eating Practices Questionnaire (FEP-Q)

Theme Topic	Question	Frequency Agree	%	Frequency Disagree	%	N	p
Healthy Eating	I choose healthy foods for my children and me to prevent disease.	16	84.2	1	5.3	19	.024
	My emotions affect what and how much I eat.	11	31.6	6	57.9	19	.024
	I allow my child to eat cookies or ice cream in place of dinner.	0	--	19	100	19	.004
	I eat 3-4 servings of vegetables per day.	10	52.6	6	31.5	19	NS
	My child eats 3-4 servings of vegetables per day.	12	66.7	5	27.8	18	.017
	My child rarely eats breakfast.	0	--	17	94.4	18	.016
	If I am busy, I will eat a snack instead of a meal.	14	73.7	3	15.8	19	.000
	Sometimes I snack when I am not hungry.	8	42.1	10	52.6	19	.019
	My child snacks when not	8	42.1	11	57.9	19	.005

	hungry.						
	I carefully watch my child's food portions.	16	84.2	1	5.3	19	.000
	I watch my food portions.	13	68.4	3	15.8	19	NS
Cooking Practices	My family and I eat vegetables seasoned with fatty meat.	1	1.7	17	89.5	19	.008
	I would rather buy takeout food and bring it home than cook for my family.	1	5.3	18	94.7	19	.029
Eating away from home	I stop for fast food breakfast for my child on my way to school.	1	5.3	18	94.7	19	.018
	I eat at a fast food restaurant at least 3x/week.	1	5.3	18	89.5	19	.008
	When choosing a fast food restaurant, I choose	0	--	16	84.2	19	.005

#### 4.1. Healthy Eating

Parents (84.2%) tend to choose healthy foods for their children and themselves to prevent diseases (16/19). One-third reported that their emotions affect what and how much is eaten. All of the parents reported that they did not allow their children to eat cookies, chips, ice cream instead of dinner. When asked if they eat at least 3-4 servings of vegetables/day, only 52.6% of the parents reported eating the minimal servings of vegetables, while more parents reported (66.7% - 12/18) that their children ate the recommended amount of servings. When presented with the statement, "my child rarely eats breakfast," 94.4% (17/18) disagreed. In a focus group discussion, parents said "sometimes children don't eat breakfast because of time" and the "children prefer to eat breakfast at home." Parents reported eating snacks instead of a meal if they are busy (14/19) and 52.6% sometime snacked even when they were not hungry (10/19), while 57.9% (11/19) reported their child also snacked when they were not hungry. When asked if they carefully watch their children's portion sizes, 84.2% (16/19) agreed that they do; however, they are less likely to watch their own portions.

#### 4.2. Cooking Practices

Eighty-nine percent (17/19) of the parents did not use fatty meats to season their vegetables. Nearly all (94.7) of the parents would rather cook than bring takeout food home to their families.

#### 4.3. Eating Away from Home

Parents disagreed with a statement indicating they would stop for fast food breakfast for their child on the way to school, 94.7% (18/19) of the parents disagreed. Only 1.7% (1/19) of the parents report eating at a fast food restaurant at least three times a week.

However, when choosing a fast food restaurant, parents did not make the choice. Only 5.2% (3/19) of the parents reported choosing the restaurant.

### 5. Discussion

Although the need for parental guidance is ever present, particularly in a changing environment, where so many factors known and unknown affect eating behaviors, we found that this population group was knowledgeable and attentive to their children's eating behaviors. However, we also found some areas that might help in programming planning and intervention to reduce childhood obesity when focusing on parental biases. For example, parents carefully watched the portion size of their

children's intake more often than their own; they were more likely to ensure the children were getting the recommended servings of vegetables more often than they were. However the children are modeling their parents' behaviors. Contrary to many studies, this population did not report frequent visits to fast food restaurants or seasoning their vegetables with fatty meat products. They preferred cooking and eating at home. In order to alter parent's behavior, there must be a change in their belief system as it relates to their children and/or family. After reviewing the parent participant responses to the FEP-Q it was evident that many of the eating behaviors could be attributed to time/convenience and conscious choice. Responses to the FEP-Q were also compared to the qualitative data gathered from parent participants at focus group sessions at the conclusion of the study. The participants of the focus group sessions discussed factors that influenced their decisions regarding eating behaviors which affected their families' eating behaviors. Participants commented that convenience/time and conscious choices influenced eating behaviors. A main theme that was prevalent throughout the sessions was that it was more convenient to eat out because of the lack of time to prepare meals at home with the many extracurricular activities in which families were involved. A concern that was also expressed was that even though eating out was more convenient it was also difficult to find restaurants that were inexpensive. The results also show that many of the families often ate at large social gatherings where one's eating behaviors may be influenced socially and culturally. It seems evident that with all the questions asked of the parents, conscious choice was the most influential factor.

## 6. Conclusion

In conclusion, there are many factors that influence the eating behaviors of parents. Although time and convenience and conscious choice are major, our data has also shown significant differences in factors related to eating healthy, cooking practices, and eating away from home. Further research needs to be conducted to determine the association between influential factors and eating behaviors of adults and how those behaviors relate to those of the family.

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