Published in final edited form as:

Appetite. 2016 June 01; 101: 134–145. doi:10.1016/j.appet.2016.02.161.

Diversity in fathers' food parenting practices: A qualitative exploration within a heterogeneous sample

Neha Khandpur^{a,*}, Jo Charles^a, Rachel E. Blaine^b, Christine Blake^c, and Kirsten Davison^{a,d}

^aHarvard T.H. Chan School of Public Health, Department of Nutrition, 677 Huntington Ave, Boston, MA 02115, USA

^bCalifornia State University, Long Beach, Department of Family and Consumer Sciences, 1250 Bellflower Blvd, Long Beach, CA 90840, USA

^cUniversity of South Carolina, Department of Health Promotion, Education, and Behavior, 915 Greene Street, Columbia, SC 29208, USA

^dHarvard T.H. Chan School of Public Health, Department of Social and Behavioral Sciences, 677 Huntington Ave, Boston, MA 02115, USA

Abstract

Background—Food parenting practices (FPPs) are important in shaping children's dietary behaviors. However, existing FPP knowledge is largely based on research with mothers.

Purpose—This study (1) identified fathers' FPPs; (2) described differences in FPP use by fathers' education and residential status.

Methods—Semi-structured interviews were conducted with 40 fathers (39 ± 9.1 years; 37.5% non-residential; 40% college education). Interviews were audio-recorded and transcribed. NVivo 10 was used for theme detection, categorization and classification using inductive and deductive approaches. FPPs were identified and their relative distribution was examined across education and residential status.

Results—Twenty FPPs were identified - 13 responsive practices and 7 unresponsive practices. *Having food rules* was the most common responsive FPP (81.5%), followed by *feeding on schedule* (60%) and *making healthy food accessible* (60%). Common unresponsive FPPs were *letting child dictate preferences* (70%), *incentivizing food consumption* (60%) and *pressuring the child to eat* (35%). Compared to fathers with a college education, more fathers without a college education reported *letting child dictate preferences* (92% vs. 37%), *educating their children about food* (37% vs 12%), fewer reported *feeding on schedule* (50% vs. 75%), *modeling healthy practices* (29% vs. 50%), and *using distraction to feed* (4% vs. 37%). Compared to residential fathers, more non-residential fathers *monitored* (60% vs. 40%) or *encouraged* (60% vs. 36%) child food intake and *let child dictate preferences* (87% vs. 60%).

*Corresponding author: Neha12@mail.harvard.edu (N. Khandpur).

Competing interests

The author(s) declare that they have no competing interests.

Conclusions—Fathers used an extensive variety of FPPs, similar to those identified in mothers. Further study on the influence of fathers' education and residential status on FPP use is warranted.

Keywords

Fathers; Child feeding; Obesity; Nutrition; Food parenting practices

1. Background

The pediatric literature on father involvement suggests that fathers are increasingly involved in food-based interactions with their children (Jones & Mosher, 2013). Fathers of young children consider child feeding well within their proximal role as parents. Their engagement during mealtimes ranges from structuring the meal, and employing strategies to feed their children (Horodyski & Arndt, 2005) to determining correct portion sizes and types of foods eaten (Vollmer, Adamsons, Foster, & Mobley, 2015b). Quantitative data collected from over 400 fathers of preschool aged children reiterate the significant role that fathers' play in shaping their children's meal times (Mallan et al., 2014). Fathers who report eating meals frequently with their children consider themselves responsible for organizing a child's meal at least half of the time, deciding what foods to feed the child and how much to offer (Mallan et al., 2014). This growing involvement in what was traditionally the mother's domain, can be attributed to a number of societal changes including changing responsibilities induced by increased maternal employment (Yeung, Sandberg, Davis-Kean, & Hofferth, 2001), evolving family structures (Cooksey & Fondell, 1996), changing social expectations (Yeung et al., 2001) and an expanding sense of paternal identity (Blake et al., 2009; Rane & McBride, 2000).

Food parenting practices have consistently been associated with child weight (Faith, Scanlon, Birch, Francis, & Sherry, 2004; Johannsen, Johannsen, & Specker, 2006; Khandpur, Blaine, Fisher, & Davison, 2014). Often used interchangeably with feeding practices, food parenting practices are defined as specific behaviors or strategies employed by parents to manage how much, when and what their children eat (Gerards & Kremers, 2015; Gevers, Kremers, de Vries, & van Assema, 2014; Hughes et al., 2013; Jansen, Daniels, & Nicholson, 2012). Food parenting practices play an important role in shaping child food preferences and eating patterns (Birch, 1999). Responsive practices that attend to child's cues of hunger and fullness, make healthy foods available and accessible and facilitate children's autonomy in food selection and energy regulation, are found to be protective against childhood obesity (Pinquart, 2014; Sleddens et al., 2014). On the other hand, unresponsive food parenting practices are characterized by a lack of reciprocity between parent and child and serve to limit children's food autonomy and disregard their satiety cues (Birch & Ventura, 2009; Black & Aboud, 2011). Unresponsive food parenting practices such as pressuring a child to eat or being excessively indulgent of children's food requests, may increase risk for childhood obesity (Birch, Fisher, & Davison, 2003; DiSantis, Hodges, Johnson, & Fisher, 2011; Hurley, Cross, & Hughes, 2011).

Assessing fathers' influence on child weight through their food parenting practices is therefore, important to address childhood obesity. However, barring a few exceptions

(Pulley, Galloway, Webb, & Payne, 2014; Vollmer, Adamsons, Foster, & Mobley, 2015a), fathers are conspicuous by their relative absence from the feeding literature. Existing knowledge about the relationship between food parenting and child eating behavior and weight status comes largely from research with mothers (Faith et al., 2004; Hurley et al., 2011). Moreover, mothers oftentimes serve as proxy reporters for fathers' food parenting practices, which may bias the resulting information on fathers' food parenting and mask any true differences that exist between parents. Fathers may use different food parenting practices to mothers or use specific practices more or less often than mothers. Evidence from the child development literature indicates that fathers manage, interact and play with their children differently than mothers (Craig, 2006; Paquette, 2004; Parke & Sawin, 1976) and there is some suggestion that such differences may play out in the domain of food parenting as well (Khandpur et al., 2014). These qualitative and quantitative differences are important to study but are currently lacking in the literature.

Contextual and socio-demographic differences in fathers' food parenting have also received comparatively little attention. Data have primarily been collected from White, well-educated fathers, co-habiting with the mother and the child (Khandpur et al., 2014). An understanding of the association of socio-demographic factors is important for two reasons. Firstly, these factors have been shown to be differentially associated with food parenting practices. For instance, low-income parents report using higher levels of coercive food parenting practices compared to White, high income parents (Huang et al., 2012; Loth, MacLehose, Fulkerson, Crow, & Neumark-Sztainer, 2013; Wehrly, Bonilla, Perez, & Liew, 2014). Secondly, the prevalence of obesity is unequally distributed across social strata, being highest among ethnic and racial minorities (Ogden, Carroll, Kit, & Flegal, 2014). Successful strategies for addressing obesity in these vulnerable populations, therefore, need to be sensitive to a variety of contextual realities. While there is growing understanding of differences in food parenting by ethnic origins and income levels (Anderson, Nicklas, Spence, & Kavanagh, 2010; Clark et al., 2008; Hughes et al., 2006; Pesch, Harrell, Kaciroti, Rosenblum, & Lumeng, 2011; Vollmer & Mobley, 2013), differences by education levels and parent residential status (i.e., whether or not a parent lives with a child) are less frequently studied, particularly in fathers.

In short, there are tremendous gaps in our understanding of fathers' food parenting practices that warrant a more nuanced assessment. This paper provides a detailed analysis of fathers' food parenting practices based on interviews with 40 fathers from diverse backgrounds. Study objectives were to (1) identify the specific food parenting practices utilized by fathers and (2) describe how these practices varied by fathers' education levels (no college vs. college) and their residential status (not residential with child vs. residential with child).

2. Methods

2.1. Study design

Qualitative interviews were conducted to provide an in-depth description of the specific food parenting practices adopted by fathers. An initial phase of the study helped inform the design of qualitative data collection instruments and the data analysis plan. Important field-level partnerships with community based organizations, local governments and experts on

fatherhood were established during this initial phase, as was a growing database of fathers from across the U.S. These provided invaluable assistance with study recruitment. Community partners included family service agencies, fatherhood programs and local departments of health. This initial phase also provided preliminary quantitative evidence on the high levels of paternal engagement in the preparation and provision of meals and snacks for their children. Data were collected using an online survey from a geographically diverse sample of fathers. The 303 fathers who participated (33% non-White; 32% no college degree) reported providing or preparing a meal or snack for their children an average of 6.6 times/week. Also, they ate 8.3 (± 4.7) meals with their children every week (data not published).

Ethical approval for the study was obtained by the Harvard T.H. Chan School of Public Health, Office of Human Research Administration (IRB number 13-0679).

2.2. Participant recruitment

A combination of purposive stratified sampling and snow-ball sampling was used to recruit an approximately equal number of fathers with high and low levels of education, while factoring in diversity in their residential status. Data saturation was informed by evidence-based recommendations for non-probabilistic sample sizes for interviews (Guest, Bunce, & Johnson, 2006; Patton, 1990; Teddlie & Yu, 2007), and was expected upon recruiting 40 fathers with a minimum of 12 fathers in any group examined (e.g., residential versus non residential). Four distinct recruitment strategies were used to maximize variation in education levels and residential status of the sample. First, all fathers who had participated in the initial phase of the study and had agreed to be contacted again were invited through email or phone calls, to participate. Second, fathers were directly recruited at local fatherhood and community-based events, from multiple localities within Boston, Cambridge, Fitch-burg and New Bedford. Third, participant fathers were encouraged to invite people from their social networks to participate in the study. Finally, community-based partners were sent emails and flyers that they distributed to the population of fathers they served. All English-speaking, adult US men, who self-identified as a father of a child between the ages of 2–10 years were eligible to participate.

2.3. Data collection procedures

Data were collected using individual, semi-structured interviews. Interviews were conducted in person or by phone, with phone interviews reserved for participants residing outside of the New England area. Several strategies were employed to maximize the quality of the data collected. In-person interviews were conducted at easily accessible and quiet locations to ensure respondent privacy and comfort and facilitate interviewer-participant rapport. All interviews were conducted by trained research assistants (NK, JC) and typically lasted 60–90 minutes. Written informed consent was obtained from all respondents. Participants were reimbursed \$80 for an in-person interview (including travel compensation) and \$40 for interviews conducted over the phone. The interviews were conducted between June and September 2014.

2.4. Data collection instruments

A semi-structured interview guide, with follow-up questions and suggested probes, was used to structure the interview (see Table 1). The guide was informed by the conceptual model proposed by Faith et al., that highlights the contextual influences (parental attributes, environmental factors and child attributes) on food parenting practices and their subsequent influence on child outcomes (Faith et al., 2012). While the interview was not strictly structured, questions were asked in largely the same sequence. Interview questions were framed to be neutral, non-judgmental and open ended. In instances when the father had more than one child in the age range of 2–10 years, fathers were asked to respond with reference to the younger child in this age bracket. The interview guide was pretested with 4 fathers, not included in the final sample, to ensure that all questions were unambiguous, minimized one-word responses and encouraged discussion. Example scenarios and probes were simplified and the interview guide was revised based on their feedback. All interviews were audio-recorded, transcribed verbatim.

2.5. Data organization and analysis

2.5.1. Coding and codebook development—The interview transcripts were imported into QSR NVivo 10 where they were organized and sorted into themes or ‘coded’. The iterative process of coding involved theme detection, categorization and classification (Ritchie, Lewis, Nicholls, & Ormston, 2013).

Theme detection: First, a list of structural codes to identify the demographic characteristics of the sample (age of father, target child, marital status of father, ethnicity, education level etc.) was developed. Transcripts were then read in full and all passages in the transcripts that indicated a food parenting practice were identified. Food parenting practices (themes) were defined as goal-directed strategies, behaviors and/or observable interactions between father and child, in settings where feeding occurs, during an eating occasion, that intend to change the content, amount, duration, or frequency of the child’s food consumption (Gerards & Kremers, 2015; Hughes et al., 2013).

Theme categorization: Twenty transcripts (50%) were re-read and specific food parenting practices (themes) that emerged from the transcripts were identified. This generated an initial list of distinct, broadly defined food parenting practices. Subsequently, themes and their definitions were refined based on: (1) their appropriateness to capture food parenting practices across all 40 transcripts, (2) existing theory and published research on food parenting practices, (3) consensus reached through peer review and (4) consultations with 3 experts in food parenting. This iterative process of data triangulation resulted in precise definitions and ensured verifiability and validity of the emergent themes (see Table 2). It also led to the concurrent development of a codebook. The codebook contained a list of every structural code and theme (identified by its thematic code), a detailed definition including instances of when it should and should not be applied and excerpts of interview text that served as examples of when that code was applicable (see Appendix 1). The lead author developed the codebook and coded the interviews (NK), with feedback from the senior authors (KD, CB). Twenty percent of the transcripts were independently double-coded by two co-authors (JC, RB) to ensure appropriate identification of text and consistent

application of the codes. Any discrepancies in coding were discussed and resolved by the team and the codebook was revised accordingly.

Theme classification: Further analysis of the data followed the building of a thematic framework as suggested by Ritchie and colleagues (Ritchie et al., 2013) where the list of themes were linked and grouped into categories (see Fig. 1). These broad categories (*autonomy support, structure, coercive control and permissiveness*), informed by existing literature (Davison et al., 2015) were further grouped into overarching, higher order categories (*responsive and unresponsive food parenting practices*) (Black & Aboud, 2011; Hughes, Power, Fisher, Mueller, & Nicklas, 2005; Hurley et al., 2011; Sleddens et al., 2014). In this way an analytical framework was developed and applied across all 40 transcripts. The entire coding process used a combination of inductive and deductive approaches – the process of theme identification and definition was inductive while a deductive approach was used for theme refinement and for the development of the theoretical framework.

2.6. Data analysis

Following data coding and the finalization of the specific food parenting practices the relative distribution of the reporting of each food parenting practice was examined for all fathers. The distribution was also assessed for fathers with and without a college degree and for residential and non-residential fathers. Single fathers and fathers who lived with their partner and child 100% of the time were categorized as ‘residential’ while those that shared custody with another caregiver, had visitation rights only or fathers with whom the child did not reside 100% of the time were termed ‘non-residential’. This categorization presented distinct and mutually independent categories.

3. Results

3.1. Participant characteristics

Participating fathers ($n = 40$; mean age 39 ± 9.1 years) were recruited from the existing database of fathers ($n = 11$, 27.5%), fatherhood events ($n = 4$, 10%) and through snowball techniques ($n = 3$, 7.5%) and referrals from community based partners ($n = 22$, 55%). Thirty interviews (75%) were conducted in-person and 10 interviews (25%) were conducted over the telephone. A similar number of White (40%) and Black (47%) fathers were included (see Table 3). Almost 40% of the fathers were non-residential and either shared custody with the other caregiver (the mother in most instances, $n = 10$) or had child visitation rights only ($n = 5$). A similar percentage of fathers had a college education or higher ($n = 16$).

Some demographic differences were observed for fathers with and without a college degree and for residential and non-residential fathers. Compared to fathers with a college education and higher, those with less than a college education ($n = 24$) were older (mean age 41.6 years vs 35 years), non-residential (58% vs 19%), had children over the age of 5 (54% vs 12%) and self-reported their race/ethnicity as Black (62% vs 25%). Compared with residential fathers, a greater percentage of non-residential fathers ($n = 15$) were also older (mean age 40.4 years vs 38.3 years), unemployed (33% vs 20%), with less than college education (80% vs 48%), and reported their race/ethnicity as Black (60% vs 40%). An equal

percent of both residential and non-residential fathers had children between 2 and 5 years of age (60%).

3.2. Food parenting practices

Twenty unique food parenting practices were identified in this sample of fathers (see Fig. 2). On average, fathers reported using 8 unique food parenting practices in their interactions with their children around food. The most common food parenting practices -*having food rules* and *letting child dictate food preferences* - were reported by over 70% of fathers, followed by *incentivizing food consumption*, *making healthy food accessible* and *feeding on a schedule* each of which were reported by approximately 60% of fathers. The least common food parenting practices were *restricting food consumption*, and *using distraction to feed* which were reported by less than 20% of fathers. Overall, more responsive food parenting practices than unresponsive food parenting practices were reported by fathers.

3.2.1. Responsive food parenting practices—Thirteen responsive practices were identified of which five practices indicated autonomy support, and eight indicated structure.

3.2.1.1. Practices indicating autonomy support: One in five fathers mentioned giving their child time with the eating process. They persisted through the initial rejection of the food, especially new food, and repeatedly offered the same food to the child in an effort to get them to try it. As one father explained:

“I try to be persistent. If he tells you ‘no,’ it’s ‘cause it’s an automatic response. Just keep trying.” – Being patient and persistent.

Nearly 30% of the fathers spoke to their children about appropriate portion sizes, the benefits of eating healthy foods and the consequences of eating unhealthy food.

“Hey, you wanna be smart. You gotta feed your brain. You wanna be strong. I just tell him that to make him see that it’s important to eat healthy.” - Educating about food.

Nearly half the fathers encouraged their children to eat food, fruits and vegetables in particular and to taste unfamiliar foods.

“I encourage him to take a bite. Why don’t you take a bite first, and let’s see? He’s usually pretty good about, if we do that, he’ll take a bite.” - Encouraging to eat.

About 40% of the fathers involved children in the selection or preparation of a dish for a meal or in the selection of food items while grocery shopping. A father who took his son shopping said:

“I’ll say to my son, you’re gonna give me a hard time over vegetables today, so pick a vegetable you’ll eat today and we’ll go home and cook it.” - Involving child in food selection or preparation.

Fathers were sensitive to child hunger and fullness cues. They anticipated and prepared for child hunger by organizing food or snacks in advance and factored child preferences for specific food into their feeding decision. A father who regularly packed his child’s lunch said:

“I always pack her an extra snack because I know after camp, she’s gonna be really hungry.” - Responding to child cues.

3.2.1.2. Practices indicating structure: Sixty percent of the fathers reported that they had a feeding routine where children were fed at specific times during the day. This applied to both meals and snacks. These routines were consistent through the week, with some fathers alluding to flexibility over the weekends and holidays.

“Pretty much everything is on the schedule. He’ll eat breakfast no later than nine. Lunch is no later than one. As for dinner, he’s not going to eat after 8:00. It doesn’t matter what day it is.” - Feeding on schedule.

Over 80% of the fathers had food rules that applied to the eating environment such as location of meals (e.g., “*We eat at the kitchen table.*”), use of electronics, (e.g., “*No TV while they’re eating.*”), dining etiquette (e.g., “*No elbows on the table.*”), finishing a meal (e.g., “*They are not to get up until they finish eating.*”), types of food (e.g., “*She has to take a bite of everything.*”), and amounts of some foods, especially snacks (e.g., “*She can only have one treat a day.*”).

Over 35% of fathers included food from different food groups at every meal and exposed their children to a wide range of foods to ensure variety in the diet.

“I like to introduce new things to the kids once in a while and open up their minds to trying new stuff.” - Introducing variety in the diet.

In an effort to get their children to try new foods or eat less-liked foods, particularly vegetables, fathers often cooked foods differently or used additional condiments. As one father explained:

“There’re some vegetables that he still hasn’t really become comfortable with, like broccoli, spinach. I’ve been able to mix it in and figure out ways around that. I make a turkey burger with spinach in it, like a lot of spinach. It’s basically a spinach burger with a little bit of turkey, and he eats that.” -Making healthy food accessible.

Fathers also indicated using additional condiments, offering healthy alternatives, camouflaging vegetables, or getting creative with presentation. They resorted to serving smaller portions, and either not telling the children what ingredients went into the meal or telling them it was a food they liked.

“We’ll try to mix it in other foods, to see if he likes it that way and chop it up and we’ll see if he’ll eat it with that.” – Making healthy food accessible.

About 60% of the fathers controlled the availability of food at home by making healthy food purchases and limiting junk food. This control extended outside of home too as fathers often packed meals for their children to take to school or day care.

“I pack her a lunch.”; “I try to give him bags of fresh fruit with a few cherries, strawberries, sliced apple, peanut butter.” - Making healthy foods available.

One in three fathers minimized distraction during meal times to help their child focus on eating.

“I turn the TV off while we eat.” - Minimizing distraction while feeding.

Over 35% modeled good eating behavior – either eating healthy food or limiting intake of unhealthy food – in an attempt to have their children follow suit. Partners, siblings and toys were also used by fathers to model desired eating behaviors.

“I’d tell her ‘Oh Wa–Wa (toy) just had some of that. Wa–Wa liked it a lot, maybe you should try it.’” - Modeling eating practices.

Nearly half of the fathers monitored the kinds of food, particularly snacks, their children consumed, the portion sizes and the times at which they were eaten and actively factored that into any subsequent decisions they made about feeding their children.

“I’m really conscious of the amount of food me and my son eat, all the time.” - Monitoring.

This involved day-to-day monitoring of foods and general appetite and also extended across longer periods of time.

“I’m always trying to figure out what he’s eating, trying to count it as best I can so I know what he ate in the last meal, so I can think about what he needs to eat that next meal.” - Monitoring.

3.2.2. Unresponsive food parenting practices—Although responsive food parenting practices were widely reported by fathers, a large majority of fathers also reported using unresponsive approaches. A total of seven unresponsive food parenting practices were identified including three practices which reflected permissiveness and four that indicated coercive control.

3.2.2.1. Practices indicating coercive control: In an attempt to increase food consumption, particularly that of fruit and vegetables at meal times, 60% of fathers reported using sugary snacks or beverages as rewards for eating or withheld TV or play time until after the child finished eating.

“If you don’t finish your dinner, you’re not gonna be able to have the dessert that I bought tonight.” - Incentivizing food consumption with food, play, TV.

Nearly one in three fathers resorted to using pressure to get their children to eat.

“Now eat. I’ll sit at the table with him. You can’t leave this table until you eat.” - Pressuring the child to eat.

Fewer than 10% of the sample reported verbally or physically limiting the intake of sugary snacks and beverages, candy or junk food. As one father explained:

“I take it away from her and not give it back to her. Then she’ll throw a fit.” - Restricting consumption of food.

One in three fathers used sugary snacks to reward good behavior. This included rewarding their children for cleaning their room, putting toys away, being a good listener, being respectful or doing what was asked of them.

“Every morning before we put him on the bus, if he’s good, he gets a glazed donut.” – Using food as reward.

Interestingly, 42% of the fathers explicitly mentioned not using pressure to feed their child (“*If she don’t want it, she don’t want it. I don’t force it upon her.*”). A few fathers (17%) also mentioned not incentivizing food intake to get their children to eat (“*I’m against bribing her. I want her to really enjoy the feeding experience.*”).

3.2.2.2. Practices indicating permissiveness: Seventy percent of the fathers reported instances in which their child directed all decision making around meals and snacks including when, where and how much they ate with few boundaries or limits imposed by fathers.

“I try to give him what he wants. He’s kind of spoiled.” - Letting child dictate food preferences, timings.

Fathers infrequently (17.5%) resorted to distracting their children into eating food during mealtimes using the TV or other screen-time devices or playing music. One father explained having the TV on while feeding his child:

“He’s looking at it the whole time. I feel like that keeps him focused.” - Using distraction to feed.

In addition, one in five fathers used an eating occasion to bond with their child or used food to show affection. Sugary snacks were most commonly used by fathers to show affection and love to their children.

“I believe chocolate makes me happy. So when I come home from work I’ll bring her a little big piece of chocolate.” - Using food to bond with the child.

3.2.3. Variation in practices by education levels and residential status of fathers—There was some overlap in the types of food parenting practices used by fathers with a college level education and higher ($n = 16$) and fathers with less than a college education ($n = 24$). Looking specifically at responsive practices, about 80% of fathers from both groups had *food rules* while eating, and about 56% *made healthy food available and accessible* to their children. Nearly 50% *encouraged* their children to eat, and *monitored* food intake. Some unresponsive practices were also reported to a similar extent. Sixty percent of fathers from both groups *incentivized food consumption* and about 30% from both groups *pressured* their children to eat.

There were also some noteworthy differences by fathers’ education level. Within responsive food parenting practices, a seemingly higher percentage of fathers with a college education reported *feeding on schedule* (75% vs 50%) and *modeling eating practices* (50% vs 29%) compared with fathers with less than a college education, whereas a greater proportion of fathers with less than college education *educated their children about food* (37% vs 12%).

Among unresponsive food parenting practices, more fathers with a college education reported *using distraction to feed* (37% vs 4%), while nearly all the fathers with less than a college education *let children dictate food preferences* (92% vs 37%) and *used food to bond with their children* (29% vs 6%) compared to fathers with a college education.

A higher percentage of residential fathers reported the responsive practices of providing *food on schedule* (72% vs 40%) and *modeling eating practices* (48% vs 20%) compared to non-residential fathers, whereas a higher percentage of non-residential fathers *monitored food intake* (60% vs 40%) and *encouraged their child to eat* (60% vs 36%). Among unresponsive feeding practices, non-residential fathers reported *restricting food intake* (20% vs 0%) and *letting children dictate food preferences* (87% vs 60%) to a greater extent than their residential counterparts. All other food parenting practices were reported by a similar proportion of residential and non-residential fathers.

4. Discussion

The objective of this study was to identify and describe the strategies that fathers used to feed their children aged 2–10 years. A total of 20 food parenting practices were identified in this sample, indicating the diversity of strategies employed by fathers. A greater proportion of these practices were responsive. They either encouraged or supported child autonomy and independence (autonomy support) or helped to organize the feeding environment to improve child competence in choosing and eating meals (structure). A small proportion of practices reported in this sample of fathers indicated the lack of reciprocity between father and child. These unresponsive practices were characterized by the use of excessive control over child feeding by disregarding child's independence, manipulating a situation with food or being indulgent to their child's food requests and demands.

While coercive and permissive practices constituted a minority of the total practices identified, at the individual level, the use of these unresponsive practices was not inconsequential. For instance, a majority of the sample reported using seemingly contradictory food practices of *having food rules* and *letting the child dictate food preferences*. Similarly 60% reported *feeding on schedule* and *making healthy options accessible and available* but the same proportion also *incentivized food consumption with food, play or TV*. The dichotomy in use of practices possibly reflects real-life feeding situations where fathers have to contend with multiple factors including child eating temperaments, food preferences and personal characteristics that often times are at odds with their feeding goals. The existing literature has identified several factors that predict use of food parenting practices. Some of these include parental weight, eating issues, perceptions of child weight, concern for child weight (Francis, Hofer, & Birch, 2001), psychosocial factors (Mitchell, Brennan, Hayes, & Miles, 2009) and child adiposity (Francis et al., 2001). The complex interactions among these factors in predicting fathers' food parenting practices warrants further assessment. Links between responsive and unresponsive food parenting practices and the circumstances of their use could be explored further in future research.

Differences by fathers' education and residential status were examined to further explore the role that contextual and socio-demographic factors play in the use of food parenting

practices. In general, there were many similarities in the practices used for the demographic groups assessed. However, there was some indication of differential use of structural and permissive food parenting practices by education levels of fathers. A recent review suggests that education is positively associated with increased structure and organization of the feeding environment through greater accessibility of fruit and vegetables (Zarnowiecki, Dollman, & Parletta, 2014). Education might reflect inherent capacity to access, process and interpret nutritional information and use it to inform behavior. High education has also been associated with less permissive practices (Vereecken, Keukelier, & Maes, 2004) and less use of food as a reward (Adnan & Muniandy, 2012).

This is one of the first studies to examine differences in food parenting practices for residential and non-residential fathers. Given the inherent complexity in defining residential status, especially in cases of shared custody, *a priori* categories were created where fathers who resided with their children 100% of the time were identified as residential. There was a suggestion of differential use of structural practices by fathers' residential status –more residential fathers reported using structural practices. No study has examined differences in feeding practices by residential status and prior research is limited to outcomes that are suggestive of mealtime structure (number of family meals eaten) and dietary behaviors in children (breakfast consumption). In these studies, children in single parent families, reconstituted or blended families, or those who live without parents are more likely to have unhealthy eating habits such as irregular breakfast consumption, irregular meal consumption, lower vegetable intake and lower diet quality compared to children living with both parents (Baek, Paik, & Shim, 2014; Jorgensen, Pedersen, Meilstrup, & Rasmussen, 2011; Levin, Kirby, & Currie, 2012; Pearson, Atkin, Biddle, Gorely, & Edwardson, 2010; Sisson, Sheffield-Morris, Spicer, Lora, & Latorre, 2014). However, this pattern has not always been significant (Berge, Meyer, MacLehose, Eisenberg, & Neumark-Sztainer, 2014). Also, nonresident father engagement has been linked to healthier eating patterns, an increased frequency of eating breakfast and lunch and an increased consumption of vegetables among adolescents in single-parent homes (Stewart & Menning, 2009).

All food parenting practices reported by fathers in this sample have been previously identified in the general child feeding literature (De Lauzon-Guillain et al., 2012; Vaughn, Tabak, Bryant, & Ward, 2013). This is an important finding, with several implications. Since research on mothers forms a large part of the current literature base, these results suggest that mothers and fathers use conceptually similar food parenting practices. As previously suggested, any differences between parents likely reflects quantitative (i.e., reflecting differences in frequency of use of specific practices) rather than qualitative (i.e., the types of practices utilized) differences in food parenting (Khandpur et al., 2014; Pulley et al., 2014). Finally, results from the study suggest that existing tools measuring food parenting practices that were originally created for and validated in mothers, may be applicable to ethnically similar groups of fathers. When comparing results from this study with prior research, there is insufficient evidence of variance in the food parenting constructs between mothers and fathers to warrant the development of unique father and mother parenting behavior measures. More research however is needed to corroborate this suggestion, especially among ethnically- and geographically-diverse population groups.

This study is one of the first to provide an in-depth assessment of fathers' food parenting practices in a diverse sample of fathers, including residential and non-residential fathers with varying levels of education. Additional strengths include the comparatively large number of interviews completed and the rigorous interview procedures utilized (e.g., use of a piloted interview guide, checking for consistency of responses and the use of neutral probes) to ensure credible and high quality reports from fathers. Moreover, the triangulation techniques used to analyze and interpret the data minimized researcher bias and helped establish descriptive, interpretive and theoretical validity. Weaknesses of the study include self-selection into the study and the possibility of social desirability in responses. Also, while an enquiry into the socio-demographic differences in practices was attempted to generate hypothesis for further testing, education and residential status in this sample are likely to be confounded by other demographic factors like fathers' age, and income.

5. Conclusions and recommendations for future research

This study addresses the dearth of research on paternal food parenting practices to inform policy, programs, and practice. On the whole, this study indicates that fathers are involved in child feeding and use an extensive variety of food parenting practices. Through these practices, fathers influence the foods eaten both at home and at venues outside the house. Continued efforts to elucidate paternal influences on children's eating behaviors are critical to guiding obesity prevention and treatment efforts. The results from this study help identify the different types of food parenting practices used by fathers. Further qualitative research could help describe the goals, values, contexts and motivations for use of such practices as well as differences by child gender. More research is also required to test the differential use of food parenting practices by education levels and living arrangements as suggested by this study. Longitudinal data will help further elucidate temporality, stability and bi-directionality of such practices, effect on child eating patterns and long-term outcomes in children and allow for comparative assessment with mothers. On the policy front, the study highlighted the active role fathers play in child feeding, reiterating the need to include fathers in family based obesity prevention efforts. Social services, food assistance programs, educational campaigns and other community engagement programs could increase their impact by tailoring services to better address the needs of fathers from different education and residential contexts.

Acknowledgments

Jennifer Orlet Fisher, Professor at Temple University, Department of Public Health, provided critical feedback to the data analysis and interpretation process.

Funding for this study was provided by the Harvard Catalyst (grant number 3UL1TR001102-02S1). The funding agency had no role in the study design, data collection, analysis or interpretation of the data or in the writing of this paper.

References

- Adnan N, Muniandy N. The relationship between mothers' educational level and feeding practices among children in selected Kindergartens in Selangor, Malaysia: a cross-sectional study. *Asian Journal of Clinical Nutrition*. 2012; 4(2):39–52.

- Anderson KE, Nicklas JC, Spence M, Kavanagh K. Roles, perceptions and control of infant feeding among low-income fathers. *Public Health Nutrition*. 2010; 13(04):522–530. [PubMed: 20082747]
- Baek YJ, Paik HY, Shim JE. Association between family structure and food group intake in children. *Nutrition Research and Practice*. 2014; 8(4):463–468. [PubMed: 25110568]
- Berge JM, Meyer C, MacLehose RF, Eisenberg ME, Neumark-Sztainer D. Nonresident parental influence on adolescent weight and weight-related behaviors: similar or different from resident parental influence? *International Journal of Behavioral Nutrition and Physical Activity*. 2014; 11:131. [PubMed: 25339189]
- Birch LL. Development of food preferences. *Annual Review of Nutrition*. 1999; 19(1):41–62.
- Birch LL, Fisher JO, Davison KK. Learning to overeat: maternal use of restrictive feeding practices promotes girls' eating in the absence of hunger. *The American Journal of Clinical Nutrition*. 2003; 78(2):215–220. [PubMed: 12885700]
- Birch L, Ventura A. Preventing childhood obesity: what works&quest. *International Journal of Obesity*. 2009; 33:S74–S81. [PubMed: 19363514]
- Black MM, Aboud FE. Responsive feeding is embedded in a theoretical framework of responsive parenting. *The Journal of nutrition*. 2011; 141(3):490–494. [PubMed: 21270366]
- Blake CE, Devine CM, Wethington E, Jastran M, Farrell TJ, Bisogni CA. Employed parents' satisfaction with food-choice coping strategies. In-fluence of gender and structure. *Appetite*. 2009; 52(3):711–719. [PubMed: 19501770]
- Clark HR, Goyder E, Bissell P, Blank L, Walters SJ, Peters J. A pilot survey of socio-economic differences in child-feeding behaviours among parents of primary-school children. *Public Health Nutrition*. 2008; 11(10):1030–1036. [PubMed: 18093351]
- Cooksey EC, Fondell MM. Spending time with his kids: effects of family structure on fathers' and children's lives. *Journal of Marriage and the Family*. 1996:693–707.
- Craig L. Does father care mean fathers share? A comparison of how mothers and fathers in intact families spend time with children. *Gender & Society*. 2006; 20(2):259–281.
- Davison KK, Blake CE, Blaine RE, Younginer NA, Orloski A, Hamtil HA, et al. Parenting around child snacking: development of a theoretically-guided, empirically informed conceptual model. *International Journal of Behavioral Nutrition and Physical Activity*. 2015; 12(1):1–11. [PubMed: 25592201]
- De Lauzon-Guillain B, Oliveira A, Charles MA, Grammatikaki E, Jones L, Rigal N, et al. A review of methods to assess parental feeding practices and preschool children's eating behavior: the need for further development of tools. *Journal of the Academy of Nutrition and Dietetics*. 2012; 112(10):1578–1602. e1578. [PubMed: 23017568]
- DiSantis K, Hodges E, Johnson S, Fisher J. The role of responsive feeding in overweight during infancy and toddlerhood: a systematic review. *International Journal of Obesity*. 2011; 35(4):480–492. [PubMed: 21427696]
- Faith MS, Scanlon KS, Birch LL, Francis LA, Sherry B. Parent-child feeding strategies and their relationships to child eating and weight status. *Obesity Research*. 2004; 12(11):1711–1722. [PubMed: 15601964]
- Faith MS, Van Horn L, Appel LJ, Burke LE, Carson JAS, Franch HA, et al. Evaluating parents and adult caregivers as “agents of change” for treating obese children: evidence for parent behavior change strategies and research gaps a scientific statement from the American heart association. *Circulation*. 2012; 125(9):1186–1207. [PubMed: 22271754]
- Francis LA, Hofer SM, Birch LL. Predictors of maternal child-feeding style: maternal and child characteristics. *Appetite*. 2001; 37(3):231–243. [PubMed: 11895324]
- Gerards S, Kremers S. The role of food parenting skills and the home food environment in children's weight gain and obesity. *Current Obesity Reports*. 2015; 4(1):30–36. [PubMed: 25741454]
- Gevers D, Kremers S, de Vries N, van Assema P. Clarifying concepts of food parenting practices. A Delphi study with an application to snacking behavior. *Appetite*. 2014; 79:51–57. [PubMed: 24732407]
- Guest G, Bunce A, Johnson L. How many interviews are enough? An experiment with data saturation and variability. *Field Methods*. 2006; 18(1):59–82.

- Horodyski MA, Arndt MJ. "Eating-together" mealtimes with African-American fathers and their toddlers. *Applied Nursing Research*. 2005; 18(2):106–109. [PubMed: 15991109]
- Huang SH, Parks EP, Kumanyika SK, Grier SA, Shults J, Stallings VA, et al. Child-feeding practices among Chinese-American and non-Hispanic white caregivers. *Appetite*. 2012; 58(3):922–927. [PubMed: 22343192]
- Hughes SO, Anderson CB, Power TG, Micheli N, Jaramillo S, Nicklas TA. Measuring feeding in low-income African-American and hispanic parents. *Appetite*. 2006; 46(2):215–223. [PubMed: 16504340]
- Hughes SO, Frankel LA, Beltran A, Hodges E, Hoerr S, Lumeng J, et al. Food parenting measurement issues: working group consensus report. *Childhood Obesity*. 2013; 9(s1):S-95–S-102. [PubMed: 23944928]
- Hughes SO, Power TG, Fisher JO, Mueller S, Nicklas TA. Revisiting a neglected construct: parenting styles in a child-feeding context. *Appetite*. 2005; 44(1):83–92. [PubMed: 15604035]
- Hurley KM, Cross MB, Hughes SO. A systematic review of responsive feeding and child obesity in high-income countries. *The Journal of Nutrition*. 2011; 110:130047.
- Jansen E, Daniels LA, Nicholson JM. The dynamics of parenting and early feeding—constructs and controversies: a viewpoint. *Early Child Development and Care*. 2012; 182(8):967–981.
- Johannsen DL, Johannsen NM, Specker BL. Influence of parents' eating behaviors and child feeding practices on children's weight status. *Obesity*. 2006; 14(3):431–439. [PubMed: 16648614]
- Jones J, Mosher WD. Fathers' involvement with their children: United States, 2006–2010. *National Health Statistics Reports*. 2013; 71:1–22.
- Jorgensen A, Pedersen TP, Meilstrup CR, Rasmussen M. The influence of family structure on breakfast habits among adolescents. *Danish Medical Bulletin*. 2011; 58(5):A4262. [PubMed: 21535982]
- Khandpur N, Blaine RE, Fisher JO, Davison KK. Fathers' child feeding practices: a review of the evidence. *Appetite*. 2014; 78:110–121. [PubMed: 24667152]
- Levin KA, Kirby J, Currie C. Family structure and breakfast consumption of 11–15 year old boys and girls in Scotland, 1994–2010: a repeated cross-sectional study. *BMC Public Health*. 2012; 12(1):228. [PubMed: 22440153]
- Loth KA, MacLehose RF, Fulkerson JA, Crow S, Neumark-Sztainer D. Eat this, not that! Parental demographic correlates of food-related parenting practices. *Appetite*. 2013; 60:140–147. [PubMed: 23022556]
- Mallan KM, Nothard M, Thorpe K, Nicholson J, Wilson A, Scuffham PA, et al. The role of fathers in child feeding: perceived responsibility and predictors of participation. *Child: Care, Health and Development*. 2014; 40(5):715–722.
- Mitchell S, Brennan L, Hayes L, Miles CL. Maternal psychosocial predictors of controlling parental feeding styles and practices. *Appetite*. 2009; 53(3):384–389. [PubMed: 19666066]
- Ogden CL, Carroll MD, Kit BK, Flegal KM. Prevalence of childhood and adult obesity in the United States, 2011–2012. *Journal of American Medical Association*. 2014; 311(8):806–814.
- Paquette D. Theorizing the father-child relationship: mechanisms and developmental outcomes. *Human Development*. 2004; 47(4):193–219.
- Parke RD, Sawin DB. The father's role in infancy: a re-evaluation. *Family Coordinator*. 1976:365–371.
- Patton, MQ. *Qualitative evaluation and research methods*. SAGE Publications, inc; 1990.
- Pearson N, Atkin AJ, Biddle S, Gorely T, Edwardson C. Parenting styles, family structure and adolescent dietary behaviour. *Public Health Nutrition*. 2010; 13(8):1245–1253. [PubMed: 19954574]
- Pesch MH, Harrell KJ, Kaciroti N, Rosenblum KL, Lumeng JC. Maternal styles of talking about child feeding across sociodemographic groups. *Journal of the American Dietetic Association*. 2011; 111(12):1861–1867. [PubMed: 22117662]
- Pinquart M. Associations of general parenting and parent-child relationship with pediatric obesity: a meta-analysis. *Journal of Pediatric Psychology*. 2014:144. [PubMed: 24974174]
- Pulley C, Galloway AT, Webb RM, Payne LO. Parental child feeding practices: how do perceptions of mother, father, sibling, and self vary? *Appetite*. 2014; 80:96–102. [PubMed: 24819343]

- Rane TR, McBride BA. Identity theory as a guide to understanding fathers' involvement with their children. *Journal of Family Issues*. 2000; 21(3):347–366.
- Ritchie, J., Lewis, J., Nicholls, CM., Ormston, R. *Qualitative research practice: A guide for social science students and researchers*. Sage; 2013.
- Sisson SB, Sheffield-Morris A, Spicer P, Lora K, Latorre C. Influence of family structure on obesogenic behaviors and placement of bedroom TVs of American children: national survey of children's health 2007. *Preventive Medicine*. 2014; 61:48–53. [PubMed: 24440163]
- Sleddens E, O'Connor TM, Watson KB, Hughes SO, Power TG, Thijs C, et al. Development of the comprehensive general parenting questionnaire for caregivers of 5–13 year olds. *International Journal of Behavioral Nutrition and Physical Activity*. 2014; 11:15. [PubMed: 24512450]
- Stewart SD, Menning CL. Family structure, nonresident father involvement, and adolescent eating patterns. *Journal of Adolescent Health*. 2009; 45(2):193–201. [PubMed: 19628147]
- Teddlie C, Yu F. Mixed methods sampling a typology with examples. *Journal of Mixed Methods Research*. 2007; 1(1):77–100.
- Vaughn AE, Tabak RG, Bryant MJ, Ward DS. Measuring parent food practices: a systematic review of existing measures and examination of instruments. *International Journal of Behavioral Nutrition and Physical Activity*. 2013; 10(1):61. [PubMed: 23688157]
- Vereecken CA, Keukelier E, Maes L. Influence of mother's educational level on food parenting practices and food habits of young children. *Appetite*. 2004; 43(1):93–103. [PubMed: 15262022]
- Vollmer RL, Adamsons K, Foster JS, Mobley AR. Association of fathers' feeding practices and feeding style on preschool age children's diet quality, eating behavior and body mass index. *Appetite*. 2015a; 89:274–281. [PubMed: 25700629]
- Vollmer RL, Adamsons K, Foster JS, Mobley AR. Investigating relationships between paternal perception of the role of the father and paternal feeding practices. *Journal of Child and Family Studies*. 2015b:1–8.
- Vollmer RL, Mobley AR. A pilot study to explore how low-income mothers of different ethnic/racial backgrounds perceive and implement recommended childhood obesity prevention messages. *Childhood Obesity*. 2013; 9(3):261–268. [PubMed: 23679199]
- Wehrly SE, Bonilla C, Perez M, Liew J. Controlling parental feeding practices and child body composition in ethnically and economically diverse preschool children. *Appetite*. 2014; 73:163–171. [PubMed: 24269508]
- Yeung WJ, Sandberg JF, Davis-Kean PE, Hofferth SL. Children's time with fathers in intact families. *Journal of Marriage and Family*. 2001; 63(1):136–154.
- Zarnowiecki D, Dollman J, Parletta N. Associations between predictors of children's dietary intake and socioeconomic position: a systematic review of the literature. *Obesity Reviews*. 2014; 15(5):375–391. [PubMed: 24433310]

Appendix 1. Codebook

#	FEEDING PRACTICES	EXAMPLE OF QUOTES
Responsive feeding practices: Autonomy support		
7.	Being patient and persistent Giving the child time with the food, persisting through initial rejection of the food. Also includes quotes that indicate repeated exposure to the food.	<p>a. I try to be persistent. "If he tells you 'no,' it's 'cause it's an automatic response. Just keep trying.</p> <p>b. I try to give her some wait time too. I know it's a process as well.</p> <p>c. I try to just keep introducing it to him, keep introducing it to him.</p>
11d.	Educating about food Teaching the child about healthy foods, appropriate portion sizes, consequences of eating certain foods.	<p>a. She will keep eating until I tell her, "You cannot cause you'll get sick".</p>

#	FEEDING PRACTICES	EXAMPLE OF QUOTES
		<p>b. "Hey, you wanna be smart. You gotta feed your brain. You wanna be strong". I just tell him that to make him see that it's important to eat healthy.</p> <p>c. We talk about serving sizes a lot because she needs to know she could only have the serving size.</p>
2b.	Encouraging the child to eat Verbally encouraging the child's intake of certain foods which may or may not be accompanied by games, reasoning or justification for the action. These strategies are perceived by the child and are milder than 2a.	<p>a. She be like "No, daddy," and I be like, "Come on. We gotta eat a banana or something".</p> <p>b. "You better hurry up or you going to get left behind. You better get to it. You better finish that".</p> <p>c. We'll still encourage them to have a bite. We encourage that, but there's not a consequence, if they don't.</p>
11e.	Involving child in food selection or preparation Giving the child controlled choice, letting the child pick what to purchase at a grocery store or prepare for a meal. Also includes instances where the child assists in meal preparation.	<p>a. When I'm with the children, I try to change the menus up and make events like pizza night. They get to make pizza with me and get the dough.</p> <p>b. We give them the option. We have the school lunch menu in front of us every weekend and we say, "Okay, out of these meals at school, which ones would you like to have this week?"</p> <p>c. We do a family night. We'll let the children choose what we're having for dinner.</p>
11b.	Responding to child cues Being aware of and responsive to child's cues of hunger and satiety. Factoring in child preferences, past foods eaten into decision and anticipating child hunger.	<p>a. "It's dinner time. How do you feel? Do you feel hungry?" Usually, the answer is, "I don't know". It's not until I start cooking, and the aroma starts going through the house that he realizes, "Oh, crap. I'm hungry". That's what I thought.</p> <p>b. I always pack her an extra snack because I know after camp, she's going to be really hungry.</p> <p>c. "Daddy, I'm done". I'm like, "Oh, okay". I saw. He did eat enough.</p>
Responsive feeding practices: Structure		
1.	Feeding on schedule Controlling feeding time. Quotes that indicate regimen, structure, consistency in meal timings or a set routine in eating practices.	<p>a. He has an eating routine, he eats on schedule.</p> <p>b. And they're on a set schedule as far as that (mealtimes).</p> <p>c. I try not to be too on demand, though. I do try to keep a schedule within a timeframe.</p>
6.	Having food rules Predictable practices involving food and drink that the child is aware of, that are generally considered non-negotiable. Includes limits set on type, amount and time at which food is eaten, particularly snacks. May also be institutionalized feeding practices or articulated expectations and can be double coded where necessary.	<p>a. She can only have one treat a day.</p> <p>b. She has to take a bite of everything.</p> <p>c. There was definitely no, eating after 8:00. That was like a strict rule.</p>
11c.	Introducing variety in the diet Exposing the child to a wide variety of food products. Including different food groups at every meal.	<p>a. I switch it up.</p> <p>b. I like to introduce new things to the kids once in a while and open up their minds a little bit to trying new stuff.</p>

#	FEEDING PRACTICES	EXAMPLE OF QUOTES
		c. I try to broaden her palate. We've been a couple of times to eat Japanese food, and she gets to have chopsticks.
8c.	Making healthy foods accessible Making foods available in a form and at a time that facilitates consumption. Changing the presentation, serving size, method of preparation or flavor of the food or drink, to increase the likelihood of being eaten by the children. Also includes instances where father provides appropriate alternatives. These strategies are generally not perceived by the child.	<p>a. We'll try to mix it in other foods, to see if he likes it that way and chop it up and we'll see if he'll eat it with that.</p> <p>b. I suppose there's some vegetables that he still hasn't really become comfortable with, like broccoli, spinach, things like that. I figured out how to make a turkey burger with spinach like a spinach burger with a little bit of turkey, and he eats that.</p> <p>c. I like broccoli, corn, string beans, I'll mix it up in different ways or season it in a different way.</p>
8b.	Making healthy foods available Making healthy purchases, having healthy foods present at home or when the child is away, in order to increase intake of certain food. Code instances where father exerts control over food eaten away from home (restaurants/school).	<p>a. I try to give him bags of fresh fruit with a few cherries, strawberries, sliced apple, peanut butter.</p> <p>b. If you'll let him, he'll eat the whole package. I try to limit those things around the house cause, if he sees it, that's all he wants.</p> <p>c. I try to keep up with healthy foods and healthy choices. Not to give her a lots of junk.</p>
5b.	Minimizing distraction while feeding Minimizing distraction to help child focus on food intake.	<p>a. Shut off the TV, physically pick him up, put him in his chair. That works sometimes.</p> <p>b. I let his food distract him. If I have the TV on or anything else other than food it's not going to happen.</p> <p>c. Around the table-time atmosphere, no. We don't like the distraction. Anything that we can do to avoid the distraction, that's how we want to do it at mealtime.</p>
4.	Modeling eating practices Displaying and role modeling eating practices and behaviors, to influence the child's eating behaviors. This strategy is employed by the father where either he or a family members serves as the model for good eating practices.	<p>a. Mainly we'll show 'em that mommy and daddy like vegetables. The main thing is we try to show 'em that we like it, 'cause that gets him to eat it.</p> <p>b. Go eat your apple, mommy. Daddy gonna eat an apple. I try to teach her to eat an apple.</p> <p>c. It's like if he's not feeling it, I'll eat it with him to show him, "Hey, it's good. It tastes good, you should try it".</p>
8a.	Monitoring Keeping track of child's appetite, kinds of food/drink consumed and their portion sizes. Effects subsequent intake of food.	<p>a. She asks, "Dad, I had a healthy snack after lunch, so does that mean I can have a sugar snack now?" I'm like, "You ate healthy before, you had a banana, so yeah. If you want a few cookies or something sugary, that's fine now".</p> <p>b. I'm really conscious of the amount of food me and my son eat, as well, at that time.</p> <p>c. Her eating habits go up and down. I start seeing her play with it like she doesn't want it. Then the next week, she's hungry all the time.</p>
Unresponsive feeding practices: Coercive control		
3a.	Incentivizing food consumption with food, play, TV Using food, play or TV to stimulate the child to eat. Includes instances where the	a. We use toys a lot as a thing to say, "Okay, this is your reward for eating your vegetables, which are good for you".

#	FEEDING PRACTICES	EXAMPLE OF QUOTES
	father withholds these incentives until after the child eats the food in question.	<p>b. "If you finish this, then we can go get an ice cream," or, "If you finish this, we'll have movie and snack night tonight".</p> <p>c. I tell her if you finish your food you can watch TV.</p>
2a.	Pressuring the child to eat Using verbal or physical pressure to increase food intake that may range from stern instruction to forcing or physically making the child eat. May or may not be accompanied by reasoning or justification for the action.	<p>a. You're not budging. I know you want to play a game (but) you got to eat your vegetables.</p> <p>b. We'd be more likely to put something on our son's fork and say, "Here, take a bite". Then he'll take a bite.</p> <p>c. Now eat. I'll sit at the table with him. You can't leave this table until you eat.</p>
9.	Restricting consumption of food Using harsh verbal or physical measures to restrict the child's intake of certain foods and/or beverages which may or may not be accompanied by reasoning or justification for the action.	<p>a. I be just, "You ain't going to get no junk, so get out of here. No.</p> <p>b. I take it away from her and not give it back to her. Then she'll throw a fit.</p> <p>c. She started eating' that, and it was like, "Hold up. Nope. That's it. Wrap it up. Eat that later. Can't eat that right now".</p>
3b.	Using food as reward Using food to reward the child for behavior that does not involve eating.	<p>a. Every morning before we put him on the bus, if he's good, he gets a glazed donut.</p> <p>b. If I want her to do something, I'll say, "Well, if you want a cookie, you got to clean up your mess". Yeah, I'll bribe her.</p> <p>c. He might want a snack, or want somethin' sweet, and I might say, "Okay. Take your shoes to your room, and I'll get you a snack".</p>
Unresponsive feeding practices: Permissiveness		
10.	Letting child dictate food preferences, timing Giving in to child's demands for meal timings, choice of meals, snacks or beverages. Having low or no limits on amount of snacks and sugary beverages consumed by the child.	<p>a. I try to give him what he wants. Like I said, he kind of spoiled.</p> <p>b. They pick through their food and then they wake up 12:00 at night and say, "Daddy, I'm hungry". Then which we still always give in to 'em.</p> <p>c. I had to go visit somewhere and we went to Dunkin' Donuts or something'. I had brought her the nuggets and then she wanted sweets.</p>
5a.	Using distraction to feed Purposefully structuring the child's environment to distract the child during an eating episode to promote intake of food.	<p>a. Sometimes he'll eat by himself, but sometimes he just seems a little active or distracted, so sometimes he'll eat and watch TV.</p> <p>b. Just distract her, you can, "Oh, what's that over there, yeah, let's check that out," done. She loves music, so you can kind of distract her with that.</p> <p>c. He's looking at it the whole time. I feel like that keeps him focused, though.</p>
11a.	Using food to bond with the child Using time spent eating to bond with the child, using food to show affection.	<p>a. She loves when I do stuff like that (bring home treats). I might come home, put my hand behind my back. She like, "What you got, daddy?" She'll start laughing and playing. I say, "I ain't got nothing for you". "Yes, you do". I say, "No, I don't".</p> <p>b. You want a piece of my burger, here I want you to have a piece.</p>

#	FEEDING PRACTICES	EXAMPLE OF QUOTES
	c.	I do believe chocolate makes me happy. So when I come home from work I'll bring her a little big piece of chocolate you know?

Fig. 1.
Theme classification and thematic framework.

Fig. 2.
Food parenting practices, N = 40.

Table 1

Sample questions from the interview guide.

Domain	Sample questions
Background	<p>Walk me through a typical weekday. Can you talk about the typical interactions around feeding your child through the day</p> <p>What does a typical weekend day look like?</p> <p>What are some of your CHILD's favorite foods?</p> <p>What about foods CHILD dislikes?</p> <p>Is there anything that I should know about him/her to help me understand your approach to feeding him/her?</p>
Feeding roles and responsibilities	<p>What is important to you when you feed your child</p> <p>Do you have any meal rules or practices that you frequently follow? What might these be?</p> <p>Do you think that food plays an important role in your interaction with your CHILD when you spend time with her/him? How/why might that be?</p> <p>What about your other children: do you have a similar role in feeding them?</p>
Food parenting practices	<p>Do you face any challenges with regards to feeding CHILD? What might these be?</p> <p>Tell me about a time when it was difficult to get CHILD to eat. What did you do?</p> <p>Can you tell me about some of the things you do to encourage CHILD to eat more/less?</p> <p>Do you have any concerns about your child's eating patterns or diet? What would these be?</p> <p>Do you have any concerns about how much CHILD eats? Why/why not?</p>

Table 2

Theme categorization and refinement of food parenting practices.

Emerging themes (initial list)	Refined themes (based on theory and existing literature)	Final themes and definitions (based on expert consultations and peer review)
1. Feeding on schedule	Feeding on schedule	1. Feeding on schedule Controlling feeding time. Quotes that indicate regimen, structure, consistency in meal timings or a set routine in eating practices.
2. Encouraging/pressuring	Pressure/encouragement to eat	2a. Pressuring the child to eat Using verbal or physical pressure to increase food intake that may range from stern instruction to forcing or physically making the child eat. May or may not be accompanied by reasoning or justification for the action. 2b. Encouraging the child to eat Verbally encouraging the child's intake of certain foods. May or may not be accompanied by games, reasoning or justification for the action.
3. Using incentives to encourage healthy eating	Instrumental feeding	3a. Incentivizing food consumption Using food, play or TV to stimulate the child to eat. Includes instances where the father withholds these incentives until <u>after</u> the child eats the food in question. 3b. Using food as a reward Using food as a reward for the child's behavior that does not involve eating.
4. Modeling good eating practices		4. Modeling eating practices Displaying and role modeling eating practices and behaviors, to influence the child's eating behaviors. This strategy is employed by the father where either he or a family member's serves as the model for good eating practices.
5. Using distraction to feed	Using distraction to feed	5a. Using distraction to feed Purposefully structuring the child's environment to distract the child <u>during</u> an eating episode to promote intake of food. 5b. Minimizing distraction while feeding Minimizing distraction to help child focus on food intake.
6. Food rules	Food rules	6. Having food rules Predictable practices involving food and drink that the child is aware of, that are generally considered non-negotiable. Includes limits set on amount and time at which food is eaten. May also be institutionalized feeding practices or articulated expectations.
7. Persisting through initial rejection of food	Patience and persistence	7. Being patient and persistent Giving the child time with the food, persisting through initial rejection of the food. Also includes quotes that indicate repeated exposure to the food.
8. Monitoring snack intake	Monitoring food access, availability and amount Changing food presentation, quality or quantity	8a. Monitoring Keeping track of child's appetite, kinds of food/drink consumed and their portion sizes 8b. Making healthy food available Making healthy purchases, having healthy foods present at home or when the child is away, in order to increase intake of certain food. 8c. Making healthy food accessible Making foods available in a form and at a time that facilitates consumption. Changing the presentation, serving size, method of preparation or flavor of the food or drink, to increase the likelihood of being eaten by the children. Also includes instances where father provides appropriate alternatives. These strategies are generally not perceived by the child.
9. Restricting/limiting access to certain foods	Restricting/limiting access to certain foods	9. Restricting consumption of food Using harsh verbal or physical measures to restrict the child's intake of certain foods and/or beverages. May or may not be accompanied by reasoning or justification for the action.
10. Indulging the child	Indulging the child	10. Letting child dictate food preferences, timing

Emerging themes (initial list)	Refined themes (based on theory and existing literature)	Final themes and definitions (based on expert consultations and peer review)
11. Other strategies		Allowing the child to direct all decisions around meal timings, choice of meals, snacks or beverages meals and snacks including when, where and how much they ate with few boundaries or limits. Having low or no limits on amount of snacks and sugary beverages consumed by the child.
	Using food to bond	11a. Using food to bond with the child Using time spent eating to bond with the child, using food to show affection.
	Being responsive	11b. Responding to child cues Being aware of and responsive to child's cues of hunger and satiety. Factoring in child preferences, past foods eaten into decision, anticipating child hunger.
	Supportive strategies	11c. Introducing variety in the diet Exposing the child to a wide variety of food products. Including different food groups at every meal. 11d. Educating about food Teaching the child about healthy foods, appropriate portion sizes, consequences of eating certain foods. 11e. Involving child in food selection or preparation Giving the child controlled choice, letting the child pick what to purchase at a grocery store or prepare for a meal. Also includes instances where the child assists in meal preparation.

Table 3

Participant characteristics.

Characteristics	Total sample N = 40	
Age (mean years, SD)	39.1	(±9.1)
Age range of target child (n, %)		
2–5	25	62.5
6–10	15	37.5
Sex of target child (n, %)		
Male	21	52.5
Female	19	47.5
Race (n, %)		
Black	19	47.5
White	16	40.0
Asian	1	2.5
Native American	1	2.5
Mixed	2	5.0
Hispanic	1	2.5
Education level (n, %)		
High school/GED	12	30.0
Some college	12	30.0
College graduate	5	12.5
Postgraduate	11	27.5
Employment status (n, %)		
Employed/self employed	30	75
Unemployed	10	25
Living arrangement/residential status (n, %)		
Residential, child and partner	19	47.5
Residential, single father	6	15.0
Non-residential, shared custody	10	25.0
Non-residential, visitation only	5	12.5
Relationship status w.r.t mother of target child (n, %)		
Married/in a relationship	19	47.5
Divorced/separated	21	52.5