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A qualitative exploration into the parent-child feeding relationship: How parents of preschoolers divide the responsibilities of feeding with their children?

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Abstract

Objective—To explore the extent to which parents divide responsibilities of feeding (what, when, where, how much, whether) with their children and the factors that influence parents' approach to feeding.

Design—Individual interviews.

Participants—Parents (n=40) of preschoolers.

Phenomenon of interest—Division of feeding responsibilities; motivation for feeding approach; challenges to feeding.

Analysis—Audio-recorded interviews were transcribed verbatim and coded using deductive and inductive content analysis.

Results—Parent's approaches to feeding vary widely. A few parents followed the Division of Responsibility approach closely. Rather, many parents gave their child more than the recommended amount of influence over 'what' foods were served and offered children less than

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the recommended amount of autonomy over the 'whether' and 'how much' of eating. Meals and snacks were approached differently; parents exhibited less control over the timing of snacks, as well as the types and amounts of foods eaten during snacks, as compared to the control exhibited during meals.

Conclusions and Implications—Future research should aim to clarify the association between the Division of Responsibility Approach and child health outcomes. Parents should be encouraged to create healthful and structured mealtimes and to remain responsive to their childrens' hunger and satiety cues and developing taste preferences.

Keywords

Division of Responsibility; Parent feeding practices; Child feeding; Qualitative; Dietary intake; Weight status

BACKGROUND

Parents have considerable influence on their children's weight-related outcomes, including dietary intake, eating behaviors and weight status. ^{1–8} In particular, a growing body of literature has identified specific food-related parenting practices as a potentially significant correlate of child weight-related outcomes. ^{8–13} Food-related parenting practices consist of a wide range of goal-directed behaviors including role modeling of healthy dietary intake; encouraging children to eat specific foods; requiring children to clean their plate at mealtimes; restricting the intake of particular foods; and establishing mealtime rules and routines. ^{14,15}

Much of the early work exploring the impact of food-related parenting practices on weightrelated outcomes focused on coercive parenting practices, including food restriction and pressure-to-eat. 11 However, experts in the field recently developed a content map to guide future research that highlights the importance of focusing on additional dimensions of food parenting, including structure and autonomy support. 15 Structure includes practices such as the creation meal/snack routines, enforcement of rules and limits about eating, guided choices, monitoring, role modeling, and home food availability and accessibility. ¹⁵ Autonomy support practices aim to provide an environment within which children can be involved in making food choices at a developmentally appropriate level and engaging the child in conversations about reasons for rules and boundaries regarding food. ¹⁵ Coercive behaviors, such as pressuring or bribing your child to eat or restricting the intake of certain foods, have been shown to be associated with overweight, ¹⁻³ unhealthy diet quality, ²⁻⁴ lower satiety responsiveness, ^{5,6} and unhealthy weight control behaviors ⁷ in children. To date, research focused on understanding the impact of structure and autonomy support dimensions of food parenting has been more limited, but certain aspects of these dimensions, including parent modeling and healthy home food availability ^{16,17}, have been shown to have more of a protective influence on weight and weight-related outcomes in children, ¹⁵ and the prevailing wisdom within the research community is that these dimensions are associated optimal weight-related outcomes. 15

The Division of Responsibility is an applied framework that reflects the broad dimensions of coercive control, structure and autonomy support identified in the new content map, ¹⁵ and is identified as best practice by a large number of expert groups and leaders in clinical practice including, The Academy of Nutrition and Dietetics, ¹⁸ The American Academy of Pediatrics, ¹⁹ Head Start, ²⁰ the Special Supplemental Nutrition Program for Women, Infants and Children, ²¹ and the USDA Food and Nutrition Service. ²² This framework, proposed by Satter, posits that there are five basic responsibilities involved in the feeding of a child: what, when, where, how much, and whether.²³ The Division of Responsibility approach suggests that parents take on the responsibilities of what, when and where; i.e., parents should decide what foods are served for meals and snacks, when meals and snacks are served, and where food is eaten during meals and snacks. In turn, children should be responsible for decisions related to how much and whether; this means that children should decide how much food they eat during a meal or snack time and whether or not they choose to eat at a meal or snack time. This approach may promote healthful eating and weight outcomes among children by allowing parents to retain responsibility for the provision of a healthful food environment while engaging in responsive feeding techniques with their child.

While the Division of Responsibility approach to feeding is distinct from broad research driven dimensions of food-related parenting practices, such as coercive control, structure and autonomy support, 15 in that it is a very specific, applied framework, there are many conceptual similarities and parsimony between the two. For example, the Division of Responsibility approach to feeding encourages parents to: 1) avoid coercive control (e.g. pressuring or bribing children to eat or limiting intake of foods that are offered), and instead 2) establish structure (e.g., rules and limits, routines) around feeding occasions, while still 3) providing children with significant autonomy support (e.g., child involvement, encouragement, reasoning); these recommendations align with the broad dimensions discussed within the literature. In some ways, the Division of Responsibility approach is a framework that allows physicians and public health professionals the opportunity to translate researched-based recommendations into actionable steps for parents. Despite the widespread use of this approach in applied settings, and its potential utility for discouraging coercive control and promoting structure and autonomy support in feeding young children, research on the use of the Division of Responsibility approach is limited.²³ In particular, the extent to which parents subscribe to and follow the tenets of the Divisions of Responsibility approach is unclear. Further, little is known about parents' motivations for dividing the responsibilities of feeding (e.g., what, when, where, how much, whether) between themselves and their child in a particular way.

Thus, the goal of this research study was to use rich, qualitative, data collected via one-on-one interviews conducted with parents of preschool aged children to describe: 1) how parents of young children divide the responsibilities of feeding and eating with their children; and 2) the factors that guide parents' choices about sharing responsibilities with children. Deepening scientific understanding of the extent to which parents of preschoolaged children adhere to the Division of Responsibility approach, as well as the motives and barriers to taking responsibility for different components of child feeding is of interest.

METHODS

Study Design and Population

The current qualitative research is an ancillary study to Project EAT (Eating and Activity in Adolescents and Young Adults) a large, population-based cohort study on eating and weightrelated health. ^{24,25} Survey data collected from 1,830 young adults as a part of EAT-IV was utilized to utilized to identify convenience sample of potential qualitative interview participants that met inclusion criteria; young adults who indicated on the EAT-IV survey that they had at least one child aged 2-5 years who lives with them at least 50% of the time were invited by email to participate in qualitative interviews in batches of 20. Sample extensiveness²⁶ was judged to be adequate when recruitment of new participants provided few additional insights and theoretical saturation was reached.²⁷ Recruitment emails indicated that the study goal was to learn more about parents' experiences feeding their preschool aged child and the factors influencing choices made about feeding. Recruitment was primarily conducted by email with some follow-up phone calls to participants who indicated via e-mail that they were interested in participating, but preferred to be contacted by phone with more information. Interested participants were scheduled to complete a semi-structured interview in-person or via phone if the participant did not live locally or had another reason that meeting in person would be challenging (e.g., primarily childcare issues).

Project EAT study participants reported their age and ethnicity/race on the original school-based survey. On the EAT-IV survey, participants reported their sex, age, relationship status, income, employment status, and educational attainment, in addition to number of children and their current custodial arrangement. Interview participants were more likely to be female, white, and have greater access to economic resources (e.g., education, income) than the full Project EAT-IV study cohort (Table 2).

Data Collection

Four researchers conducted semi-structured interviews with parents (n=40) using a semi-structured interview guide that asked parents open-ended questions about how they divided up the responsibilities of feeding between themselves and their child, the motivation behind their approach to feeding, and any challenges they face in their feeding relationship with their child. Examples of interview questions include: "How often does your child eat meals and snacks?", "At your house, who decides if it is time for a meal or a snack?", "Who decides what your child will eat for a meal or a snack?", "Who decides how much food your child eats for meals and snacks?" and "Is your child allowed to help themselves to food without asking you first?". Table 1 includes all of the semi-structured interview questions relevant to the current analysis.

Open-ended questions were followed with probes such as "Tell me more about that" or "If it is you who decides [insert specifics], how do you make that decision?" The interviewer probed for additional information from each participant about who handled responsibilities and what motivated their choices about how to divide up responsibilities in the way they did. The semi-structured interview guide was first piloted with two content area experts, three graduate students, and four parents of children aged 2-5 to make sure questions were clear,

elicited in-depth discussion, and were acceptable to participants; feedback from pilot testing was used to modify the wording, content and order of interview questions. All four interviewers were trained by the study PI according to the protocols of Kreuger;²⁸ none had a prior relationship with the study participants. Interviews ranged in length from 30 to 60 minutes. The majority of interviews (n=30) took place in a private room on the University campus, while 10 interviews took place over the telephone. Interviews were audio-recorded and written consent was obtained before commencing the interview. All study protocols were approved by the XXX Institutional Review Board Human Subjects Committee and participants provided informed consent.

Data Analysis

Audio-recorded interviews (n=40) were transcribed verbatim and coded using a deductive and inductive content analysis approach.^{29–31} This hybrid approach allowed for using broad a prior categories, such as general feeding responsibilities [e.g., what, where, when, whether, how much; (deductive analysis)] to guide the analysis, while at the same time allowing for unique themes to naturally emerge from the data (inductive analysis). For example, each interview transcript was read with the specific goal of understanding how parents approached each of the five broad feeding responsibilities, but themes and concepts emerged inductively from within this guiding template. With broad a priori feeding responsibilities as an organizational template, the researchers read through each interview line-by-line to establish initial codes and capture key thoughts and concepts. Next, coding to reduce broad categories into subcategories was conducted and major concepts were identified. The major concepts were further defined, developed, and refined into main themes. Two members (first and second authors of this paper) of the research team independently read and coded the interviews using NVivo 10 software (NVivo 10, QSR International Pty Ltd, Burlington, MA 2014). All parent transcripts were analyzed and coded to ensure that saturation of themes had occurred. To improve trustworthiness of the data and reduce bias, all transcripts were coded independently by both coders and were then discussed to reach consensus; both coders discussed questions in-person regarding quotes or placement of quotes in theme categories until 100% agreement was reached. The full sample was used to generate themes; however, the vast majority of themes were identified during the coding of the first 15 interviews. To confirm interpretation of the information generated from the interviews, preliminary study results underwent member checking with ten (25%) of the original parent participants. These individuals reviewed study findings and provided feedback via a second individual interview with the principal investigator to enhance data credibility and authenticity.32-34

RESULTS

Results are presented to emphasize parental responses to specific research questions about feeding responsibilities, followed by unique ideas (coded as themes) that emerged from the interviews with parents. Participant approaches to feeding responsibilities differed greatly between meal and snack occasions; thus we present thematic results related to meals and snacking separately. Table 3 shows select participant quotes to highlight each identified theme.

Feeding Responsibility 1: What?

In line with Division of Responsibility recommendations, most parents took on the responsibility for choosing **what** foods were offered to their children at dinner time; however, many parents allowed children more freedom of choice about what to eat for breakfast and lunch meals. Among children who were allowed to take on the responsibility of choosing what to eat, many parents described using a guided choices approach, in which they allowed their child to choose what they wanted to eat between several pre-selected options.

For example, one parent said, "It's kind of both. Usually I will give them, you know, usually two, sometimes three choices for supper, and I'll say, you know, "Do you want tacos, spaghetti or grilled cheese tonight?" And then between my two kids they usually come up with an idea together. If they don't agree, then I say, "Okay, we're doing this tonight."

Far fewer parents indicated that they allowed their child complete freedom regarding what they chose to eat for dinner. In cases where parents reported taking primary responsibility over selecting what food was eaten, three themes guided how parents made the decision about what to serve: child preference, healthfulness, and time pressure.

Child preference—Overwhelmingly, parents talked about their child's preferences playing the largest role in their decision about what foods to serve at mealtimes. Parents described thinking about their child's preferences when grocery shopping, planning and serving meals. In some cases, child preference guided all of the foods served, but many parents also talked about serving child preferred foods alongside less-preferred foods.

Healthfulness—The desire to serve healthy foods influenced the choices many parents made about what to serve at meals and was a primary reason why many parents refrained from letting their child choose what was eaten. Many parents talked about the challenge of balancing child preference with the desire to serve healthy foods; parents often struck this balance by offering their child "guided choices" at mealtimes or the opportunity to choose between several pre-selected options.

Time pressure—While less prevalent, some parents also talked about the pressure of time playing a role in their decision about what to make at mealtimes; they noted that they chose foods they knew they could make quickly after work or with children underfoot.

Feeding Responsibility 2: When?

In alignment with Division of Responsibility recommendations, the majority of participants indicated that the timing of $\underline{\mathbf{when}}$ meals were served was chosen by one or both parents, with little input from the child.

For example, one parent indicated, "Mealtimes, like breakfast, lunch, dinner are pretty much decided by the adults. Snacks they request when they're hungry. We let them eat when they want to have a snack."

Schedule/routine and outside conflicts such as work, school or family activities emerged as themes when parents talked about the timing of meals.

Schedule, routine—The majority of participants talked about how a typical schedule or routine was the driving factor for deciding when meals would be served in their home. In fact, for most families, their daily routine was so engrained that participants often struggled initially to talk about who took on the responsibility of deciding when meals would be served. Instead, many participants talked about their families routine with a high level of detail, suggesting that it was the routine itself, albeit a routine set up by the parents, which took on the responsibility of when meals were served.

School, activity or work conflicts—Extracurricular activities (e.g., children's sports practices or games, religious activities) contributed to decisions regarding when to serve meals. Similarly, some families described scheduling mealtimes around their own or their spouse's work schedule. Parents indicated that scheduling conflicts were the primary reason that they might stray from the typical schedule or routine.

Feeding Responsibility 3: Where?

While some diversity in responses existed across the sample with regard to <u>where</u> meals were eaten, the majority of participants described always serving and eating meals with their children at a dining room table or kitchen counter of some kind.

For some parents, this routine was very important. For example: "We are always sitting down. My girls are in booster chairs and strapped in, because mealtime is when you sit and you eat, and when you're done, you leave — no food ever leaves the table at my house."

A smaller subgroup of parents talked about eating meals in the living room in front of the television. Themes about the importance of "the family dinner table" and the use of "devices as distraction" emerged during the discussion about where meals were eaten.

For example, one parent stated "Sometimes it's good to have her distracted by the TV, because if she says she doesn't like what we have but we know that she does, she just didn't want it — if she's watching TV, she'll actually forget about that and eat it.".

The family dinner table—Many parents talked about making it a priority to eat dinner as a whole family at the dinner table. For some participants, family meals eaten around a family dinner table were a positive memory from their childhood and an experience that they wanted to pass on their children. Other parents indicated that they had not experienced family meals around a table as a child and indicate that their desire to bring their family together around a table was an intentional effort to do improve upon their own mealtime memories for their child.

Devices as distraction—A small number of parents talked about the presence of devices (e.g., television, tablets) during meals. Most of these parents noted that the distraction of the device helped to improve the way their child ate, which led them to count on these devices during mealtimes.

Feeding Responsibility 4: How much?

Parents were asked to talk about who was responsible for deciding **how much** their child ate at a given meal; the Division of Responsibility Approach suggests that this responsibility be left to the child. In response, three main themes emerged that parent's felt played a role in how much their child ate at mealtimes: 1) how food is served at meals (including how much food to serve or offer); 2) responsiveness to child's hunger and satiety cues; and 3) when they allow their child to be done eating a meal. Overall, it seemed that the responsibility of how much food was eaten at meals was shared between the child and the parent, with the majority of parents reporting that they used techniques or tools to encourage their child to eat more foods (particularly foods they felt were healthy) but that in the end they allowed their child to have some say in when the meal was done.

For example, one parent said "Sometimes, they can't eat the whole thing. That's why sometimes I just offer, you know, encourage, maybe you try three or four bites, and after that, they can go."

How food is served at meals—Most parents reported controlling how much food their child had on their plates at mealtimes by serving food to their child (i.e., plated), rather than allowing their child to serve themselves (i.e., family-style). Parents shared that they served their child food, instead of serving food "family style", because they felt that the food was too messy or hot and out of concern that their child was not developmentally ready to know how much to serve themselves. The majority of parents reported that they relied upon "how much they usually eat" to guide them toward the correct serving size. Some parents also reported relying on environmental or external cues, including reliance on package size or recommended serving sizes for children of certain ages or "filling up the little sections on their plate".

Responsiveness to child's cues—Most parents indicated that they relied, at least to some degree, on feedback from their child when making decisions about how much food was eaten at meals. For example, most parents allowed children to request seconds if they were still hungry after eating their initial portions, although many parents indicated that they had certain rules about offering seconds, such as they were only given for certain foods (e.g., "It depends on the food. If it's something healthy, we'll give her more.") or that the child needed to eat all of the food on their plate before getting seconds of any one food item (e.g., "But before I give them seconds, they have to finish their plate.") These secondary rules suggest that parents were responsive their child's hunger cues and associated requests, but that their responsiveness had its limits. Finally, only a very small number of parents required children to eat all of the food served to them at a particular meal before allowed the child "to be done" eating.

When parents allow their child to be done eating a meal—How parents made the choice about when to allow their child to "be done" eating at a particular meal was hard to define, even for the parent participants themselves. When asked about how they decided when their child could be done eating a particular meal, most parents indicated that they allowed children to be done when "I feel like they have eaten enough". Parent's described

this feeling depending primarily on their child's typical intake as well as wanting them to finish a good balance of food items at each meal.

Feeding Responsibility 5: Whether

Parents were asked to talk about who was responsible for deciding **whether** their child ate at a given meal; the Division of Responsibility approach recommends that children take on the responsibility of choosing whether or not to eat at mealtimes. In response, most parents indicated that this responsibility was shared between themselves and their child, with only a very few parents allowing their child to take full responsibility for whether not they chose to eat between themselves and their child. Parents noted utilizing a variety of techniques utilized to ensure that their child ate at least some of the foods offered to them, with themes including the "one bite rule", having different rules for different foods, and using dessert as a reward for eating other food items.

One parent said, "So I'm thinking of last night. There was quinoa and broccoli and something else, and he really only wanted broccoli, so I wasn't going to stop the kid from wanting broccoli. So he had probably four or five servings of broccoli, didn't touch anything else, but it's like that's fine. But, he's done that with, you know, mac and cheese, and if he wants more mac and cheese, it's 'You can have more mac and cheese when you finish your vegetables' or, you know, protein, whatever is left."

One-bite rule—A large number of parents talked about relying upon some version of the "one bite rule" during mealtimes; in sum, this rule requires that children try at least one bite of each food item offered to them. Parents talked about using this rule as a way to strike a balance between requiring their child to eat everything offered to them at a meal and letting them get away with not trying new or different foods.

Different rules for different foods—The majority of parents talked about having different rules for different food items served at meals. For example, many parents noted that they had rules that required their child to eat vegetables or protein food items, but that they allowed their child to determine whether they would eat fruits and grain foods. While the rules employed varied widely, parents seemed determined to ensure their child ate the foods they considered to be healthiest or "most filling" whereas they were less concerned about whether their child ate less healthful or favorite foods.

Offering dessert for eating well—A number of parents talked about letting their child eat dessert or choose a treat if they ate well at their meal. Notably, most parents did not have a specific rule about how much food needed to be eaten (e.g., clean plate club) in order for dessert to be offered; most simply noted that they would use the offer of dessert or a treat to encourage their child to try foods or to eat more if they didn't feel they were eating enough.

Feeding responsibilities during snacks

Participant responses about how they handled feeding responsibilities differed widely for mealtimes versus snacks. The majority of parents allowed their child a choice about <u>what</u> they wanted to eat for a snack; many parents used guided choices (letting their child choose

between several options), whereas others indicated that they allowed their child total freedom of choice. The majority of parents indicated that their child(ren) took on the responsibility for the timing of **when** snacks were served; the vast majority of snacks were served in response to a request from the child, rather than parent initiated. There was great diversity in parental responses to **where** snacks where eaten, ranging from in the kitchen, to on the couch in front of the TV or various rooms in the house, and "on the go". In fact, only a minority of parents seemed to have strict rules regarding where snacks needed to be eaten (e.g., in the kitchen, at the table) and instead snack location seemed to depend more on other contextual factors (e.g., child preference, child mood, or concurrent activity).

DISCUSSION

In the current study, a small number of parents closely followed the Division of Responsibility approach by taking complete responsibility for choosing the 'what', 'when' and 'where' of eating and allowing their child to take the main responsibility for the 'how much' and the 'whether' of eating. However, majority of parents interviews did not follow all of the tenets of the Division of Responsibility approach to feeding, with many parents giving their child more than the recommended influence over 'what' foods were served and eaten and offering their child less than the recommended amount of autonomy over the 'how much' and 'whether' of eating. These findings suggest that while this approach to feeding has been identified as best practice and is widely recommended by a number of professional organizations, ^{18–22} all of its tenets have not necessarily been fully adopted by the majority of parents of young children. Although the findings from the small sample of parents interviewed for this qualitative study cannot necessarily be generalized to all parents of young children, information from these parent interviews helps to illuminate how and why parents are dividing up the responsibilities of feeding between themselves and their child, shedding light on 1) how parents' behavior aligns with the tenets of the Division of Responsibility framework and, 2) in what instances or for what reasons does parents' behavior diverge from these tenets.

The majority of parents interviewed had similar goals for family mealtimes; they wanted to avoid conflict at mealtimes, while also making sure their child ate the right amount of the right foods. Despite these shared goals, the pathway that parents took to achieve this outcome varied widely. Parents cited conflict avoidance as the primary motivator for letting their child have more influence over the foods served at meals. Most parents did not take an "all or nothing" approach when it came to who was responsible for what foods were served. Instead, many relied upon guided choices, or letting their child choose between several

options. Others let their child choose part of a meal, but took responsibility for choosing the other items served. Many parents also reported stepping in to guide their child regarding the amount of certain foods that should be eaten (i.e.,, 'how much' and 'whether'); parenting behaviors aimed at influencing 'how much' and 'whether' ranged from reasoning (e.g.,, if you don't eat now you will be hungry later), to negotiation (e.g.,, take a few more bites and you can be done), to bribery (e.g.,, if you eat all of your dinner then you can have a treat). ¹⁵ Parents who struggled with letting their children make their own choices about what foods to eat and how much to eat indicated that they did so out of concern about their children eating too much or too little, or not being capable of making healthy choices for themselves.

These qualitative data helped to shed light on the fact that the "how much" responsibility of feeding is truly an interplay between how food is served to a child and who takes on the responsibility for how much food is actually consumed. Within the current study, some parents reported serving meals to their child by placing parent-determined portions of food on their plate, others reported allowing the child to serve themselves (i.e., family style), and many indicated using a combination of these methods; these findings align with previous research that has found that meal service style varies widely between and within families.³⁵ Interestingly, within each of these meal service styles, rules about how much food needed to be eaten were wide-ranging. Rules ranged from parents who allowed their child complete autonomy over how much to eat, to parents who required children to eat all of the food on their plate, with the majority of parents lying someplace in the middle; examples of this "middle of the road" approach included encouraging, but not forcing their child to eat a certain amount, requiring a few more bites of certain foods before a meal could be completed, or restricting seconds on a particular food until more of another one was eaten. These details from parent interviews highlighted an important nuance with regard to who is in control of how much is eaten; there is an opportunity for parents to exert control in the way food is served (pre-plated or family style), as well is in the rules they set up around how much food is eaten once it is on the child's plate. These findings, considered along with previous research exploring the impact of meal service style³⁵, suggest that responsive feeding can look many different ways; parents can engage in responsive feeding by allowing their child to serve themselves, or, if foods are too hot or messy for child to self-serve, by serving food to their child, but allowing their child to stop eating when they are full or to ask to be served seconds of desired food items.

Interviews suggested that parents were far less likely to follow the Division of Responsibility approach when it came to snacks. For example, many parents described allowing their child to take primary responsibility for choosing what to eat during snack time. Many children were given the opportunity to choose between several snack options, whereas some, albeit far fewer, children were given the freedom to choose any snack available. Regarding timing, a small number of parents had scheduled snack times that they adhered to during the day; however, the majority of parents provided snacks throughout the day upon their child's request. Finally, parents reported being much more flexible with regard to where snacks were eaten, indicating that their child would eat snacks in the car, on the run, or in various rooms throughout the house. These findings align with previous research exploring parents approaches to feeding their children snacks versus meals; ^{36–38} the current findings, in combination with previous research suggest that how meals are

handled is much more aspirational, social, and oriented to child development and role modeling, whereas snacks seem to be much more functional and oriented around hunger or behavior management.^{39–41} In many ways it makes sense that parents would approach snacks in a less structured way than meals. However, research has shown that, on average, more than a quarter of a child's daily calories are consumed as snacks,⁴² indicating that the types of foods eaten as snacks contribute importantly to a child's overall dietary intake. These findings suggest that parents need to employ greater structure around snacking; perhaps adopting a guided choice approach¹⁵, would provide both parents and children with an appropriate balance of structure and freedom during snack time.

The current study adds significantly to the literature by identifying that the majority of parents of young children behave in a way that aligns with the 'what' tenet of the Division of Responsibility framework by taking on the responsibility for choosing what foods are served, but struggle to align themselves fully with the framework's tenets of 'whether' and 'how much'. Interview data also illuminated that parents divide feeding responsibilities at meals very differently than at snacks, adding to existing evidence that parents view meals and snacks very differently. 40 Future research should aim to understand the impact of this framework on diet and weight-related outcomes when it is adhered to at all eating occasions to identify if adherence to any one tenet offers is of greater importance than another. Further, researchers and clinicians should collaborate to explore alternative messages or frameworks that could be used to encourage parents to provide the structure and autonomy support shown to yield positive outcomes in children. It should be noted that although study participants were drawn from a large, population-based sample, this convenience sample is overrepresented by white, upper middle class, college educated parents and therefore is not representative of the population at large. Future work should also aim to examine if parents of diverse racial/ethnic and socioeconomic backgrounds divide up the responsibilities associated with feeding their children in a similar way and to explore if the effectiveness of this approach yields similar outcomes across groups.

IMPLICATIONS FOR RESEARCH AND PRACTICE

Although the Division of Responsibility approach to feeding is widely recommended by clinicians and public health professionals, findings from the current qualitative study indicate that only a small number of parents followed the Division of Responsibility approach closely. Instead, the large majority parents did not follow the Division of Responsibility approach to feeding precisely, with many parents giving their child a great deal of influence over 'what' foods were served and eaten and offering less child autonomy over the 'how much' and 'whether' of eating. Research aimed at clarifying if the Division of Responsibility Approach is indeed associated with improved health outcomes for preschoolaged children is needed. In the meantime, clinical and public health professionals should encourage parents to create healthy and structured mealtimes for their children and remain responsive to their children's' hunger and satiety cues, as well as their developing taste preferences.²³ A combination of providing a healthy home food environment, positive role modeling, and engaging responsive feeding techniques has been shown in a variety of research studies to promote healthy dietary intake and positive weight-related outcomes in children. ^{13,15–17,43}

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Table 1

Semi structured Interview Guide

For this first set of questions I am interested in learning more about how you feed your child. Remember, there are no right or wrong answers, please feel free to provide me with as much detail as you feel comfortable with as we work through each question.

- 1) To start out, can you tell me a little bit about how meals and snacks look for your child? For example, I am interested in learning...
 - -How often your child eats meals/snacks?
 - -Who they are with when they eat meals/snacks?
- 2) When do you feed your child a meal/snack?
 - -Who decides if it is time for a meal/snack?
 - -If it is you, how do you decide?
 - -What if you child asks for a meal/snack at a time different than you had planned?
 - -Is the timing of meals/snacks the same every day or does it change?
- 3) Who decides what your child will eat for a meal/snack?
 - -If it is you, how do you decide?
 - -Is the decision about what to eat for meals/snacks always made by the same person or does it change?
- 4) Is your child allowed to help themselves to food without asking you first?
 - Are there foods/drinks in your house that your child is not allowed to eat, or that have special rules/limits?
 - -How are those rules/limits enforced?
- 5) Who decides **how much** food your child eats for a meal/snack?
 - -Does your child play a role in this decision?
 - -Who serves the portion?
 - -If you serve your child, how do you decide how much food to give them?
 - -Is the decision about how much food your child eats always made in the same way or does it change? -Do you think it is appropriate for preschool aged children to serve themselves?
- 6) What do you do if your child refuses to have certain foods put on their plate (or refuses to eat certain foods they are served)? Is this always handled in the same way or does it change?
- 7) How is it handled if your child says they are done eating/no longer hungry but there is still food left on their plate or you feel like they have
- 8) How is it handled if your child wants more food than you put on his or her plate (or than they put on their plate)? More snack during a snack
- 9) In general, when you are with your child, how much control do you feel like you have over what and how much they eat?
- 10) We have talked today about many different decisions you make about how to feed your child. Are there any guidelines, rules or routines that you follow when feeding your child that I did not ask about?

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 Table 2

 Demographic characteristics of study participants: EAT IV Parent Sample and Qualitative Interview Sample

	EAT IV Parent Sample ^a	Interview Sample ^b
	N=512	N=40
	Mean (SD)	Mean (SD)
Age	31.3 (1.5)	31.2 (1.41)
Gender		
Male	37.7 (193)	27.5 (11)
Female	62.3 (319)	72.5 (29)
Race/Ethnicity	% (N)	% (N)
White	69.5 (351)	80.0 (32)
Black	6.5 (33)	2.5 (1)
Hispanic	3.8 (19)	5 (2)
Asian	14.9 (75)	5 (2)
Mixed/Other	5.3 (27)	5 (2)
Income		
Less than \$34,999	13 (66)	10 (4)
\$35,000-\$49,000	12.4 (63)	15 (6)
\$50,000-\$74,999	23.8 (121)	15 (6)
\$75,000–\$99,999	21.3 (108)	20 (8)
\$100,000 or more	29.5 (150)	40 (16)
Employment Status		
Working full time	71.3 (365)	67.5 (27)
Working part time	11.3 (58)	22.5 (9)
Stay at home caregiver	14.3 (73)	10.0 (4)
Not working for pay, other	3.16 (14)	-
Educational Attainment		
High school or less	25 (133)	10.0 (4)
Technical school	13.7 (70)	7.5 (3)
Associate's Degree	13.9 (71)	10.0 (4)
Bachelor's Degree	33.7 (172)	45.0 (18)
Graduate Degree	13.1 (67)	27.5 (11)
Number of Children		
1	20.6 (105)	25.0 (10)
2	47.0 (240)	50.0 (20)
3	21.9 (112)	15 (6)
4+	10.5 (54)	7.5 (3)
Relationship Status		
Single, casually dating	5.7 (29)	5 (2)

	EAT IV Parent Sample ^a	Interview Sample ^b
Committed relationship	15.8 (78)	12.5 (5)
Married, Domestic Partner	80.0 (393)	82.5 (33)
Domestic Partner	82.9 (407)	-

^aParticipants (N=492) for the current quantitative analysis included individuals who completed the Project EAT survey at EAT I and EAT IV, and reported at EAT IV that they had least one child aged 2-5 that lived with them at least fifty percent of the time.

^bParticipants (N=40) in the qualitative interviews were recruited from the Project EAT IV sample; to be eligible to complete an interview individuals were required to have at least one child aged 2-5 that lived with them at least fifty percent of the time.

Table 3

Additional Quotes from themes and subthemes of qualitative analysis regarding the division of feeding responsibilities between parent and child.

Feeding responsibilities	Participant Quotes		
	Who handles the responsibilities of feeding – parent or child?	If parent takes responsibility, what influences their decision?	
What Who decides what your child will eat for a meal or snack?	He chooses the breakfast, most of the time. He chooses the sandwich, some raviolis or something, but it's pretty much sandwiches. He chooses that. The dinner, he doesn't. He doesn't get to choose, and he can choose the snack. He can choose everything except the dinner, pretty much. Yeah, we decide, because we're the chefs. We're cooking the meal, so, yeah, we do decide.	Child Preference I do think about what they like and not like when I cook. You know, I do try to offer something that they like, and then I also offer something that I like or I think that is healthy for them. Whatever they're going to eat is what I'll feed them, because they're kind of picky, and then they'll snack through the night. They want animal crackers, or they want fruit roll-ups. I don't try to limit that, because they don't eat a whole lot, so we let them have bits and pieces. Time pressure But, yeah, usually one or two meals is prepared in the beginning of the week and then throughout the week, and the rest of the meals are kind of made — we usually try to find meals that don't take longer than 10 minutes or 15 minutes to cook. Healthfulness Organic and GMO-free, paraben-free. Those are all really important to me. Granted, I can't avoid all of it because of my schedule, but those are very important factors. The time that it takes to prepare a meal is very important, so things that are faster and easier are important to me. And protein is important to me. I struggled a lot with my weight when I was younger, and I would like my kids to avoid that as much as possible.	
When Who decides if it is time for a meal or a snack?	I would like to say that we decide when, but then if she's not ready for it, she will just not eat it. She'll just "I don't want to eat yet." She'll say she's hungry 20 minutes later, and then she'll eat it. If he asks for a snack, sure he can have one if he's hungry.	Schedule, routine Just based on routine, basically, like the normal times they would eat breakfast, lunch and dinner. I mean, we usually wake up, eat breakfast, lunch is usually around noon, and then dinner is usually around 5:00, 5:30. So that's just kind of the routine that's worked out for our family. School, activity, or work conflicts Dinner depends on like if we have any evening activity going on. So if the evening activity is like late afternoon, early evening, we have to eat afterwards, then it becomes a late meal. If it's something that's later in the evening, then we have the earlier meal. If I'm working later, then we get home later for a meal. So generally it's sometime between 5:30 and 6:30, but it really just depends on my work schedule and after-school activities.	
Where Where are meals and snacks eaten?	At home, at the breakfast table. We're at the table for 95% of his meals during the week. Snacks are often eaten on the couch and when he gets up from his nap. He'll have a little snack and watch a short show, so it's usually on the couch. Well I guess it usually happens where they (the kids) sit at a table together and I just kind of eat separately, but I mean, I'd like to do it more all at one table, but sometimes it's just too busy and it doesn't happen. Occasionally they'll have like snacks, where they'll have a bowl of something wandering around the house, too, but we try and have them eat at the table.	Dinner around the table feels important, is a priority I do sometimes try and get him to sit at the table, but I don't know why I kind of feel like it's important for him. Devices as Distraction If we put him in front of the TV, he'll eat all his food, and actually sometimes I do put him in front of the TV just so that he'll eat his food.	
How much Who decides how much food your child eats for a meal or snack?	We do the meal, and they can pick how much they want to eat, or how little. It's sometimes a negotiation. Usually they're good eaters, and they'll eat whatever is on their plate. Sometimes they kind of have one of those meals where like they're not attending to	Style of Food Service I don't think that she is developmentally ready to pick how much she eats. Also, her dinners are always hot, and so I don't want her burning herself. But I don't think that she's quite to the point where she could do that. Responsiveness to child's cues	

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Feeding responsibilities Participant Quotes Who handles the responsibilities of feeding If parent takes responsibility, what influences their – parent or child? eating, and then one of the siblings gets done I give them a very small portion of everything that we're faster or a cousin gets done faster, whoever having, to start, and then they can have more of whatever gets done faster, and so then they want to be they want after that. done too, and we've noticed that they have When do parents allow their child to be done eating a haven't been attending to the meal, then we'll meal say, "Well, let's talk about how many more It's mostly when he decides. But then if we don't think that bites you should have before you're done. he's had enough to eat, then we'll tell him to sit back down. And then if he's still not eating, then we'll kind of give him the ultimatum that, "Okay, no snack," or, you know. Usually when he's done, then we just let him go, as long as he's eaten enough. Whether I guess I try to serve mostly healthy things, so One-bite rule What is done if child refuses for the most part, once they eat whatever they We ask them — they at least have to take a thank-you bite certain foods, meals or were kind of - I try to have them try or try one bite of it, and it can be a struggle or a challenge at snacks or says they are done everything, and then after they've done that, dinnertime or any other meal time when they're having eating before you think that something they don't necessarily like. they can have more of whichever thing they Different rules for different foods like, so sometimes they end up eating just they are? bread or something — that happens. And if he wants more of that, like seconds, he asks, but he I can put the food in front of him and tell him has to eat other things first, because he'll usually eat all the he has to have a few more bites, but if he's not bread, or all of whatever he likes, so in that sense, we decide if he can have more or not of the item that he likes. hungry or doesn't want to eat, he'll just — he just won't eat. I don't want to force him if he Dessert for eating well says he's full. But I just remind him then Yeah. If he eats all his food, then he'll get a treat, and so usually if it's at dinner, like if he doesn't like he's very treat-motivated. something, he'll just say he's full, and I'll just remind him like, "We don't get to eat later, and you're going to be hungry and you won't get to eat," and then he'll usually have a few more If she hasn't touched anything, then it's, "No, you have to eat something for your well-being. I know you don't like it, but you have to eat."

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