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How Parents Describe Picky Eating and Its Impact on Family Meals: A Qualitative Analysis

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Abstract

Children are frequently described as being picky eaters. However, this term has been inconsistently defined in prior research. There is limited qualitative research data investigating how parent's define picky eating, how they respond to it, or how they see picky eating impacting their child's dietary intake or the family meal. For this study, parents (n=88) of siblings (ages 2–18 years old) were interviewed in their homes. The semi-structured interviews focused on parent feeding practices and child eating behaviors. A qualitative content analysis approach was used to analyze the data; themes regarding picky eating emerged. Results of this study show that the majority of parents (94% female; mean age 35 years) were from minority and low income homes. The following themes regarding picky eating were identified: 1) children were frequently described as being picky eaters; 2) parents defined picky eating in a variety of ways (i.e., not liking a few foods; limited intake; resisting texture or appearance of foods; resistance to new foods); 3) picky eating impacts the family meal (i.e., promotes meal-related parent stress; impacts meal preparation); and 4) parents respond to picky eating in a variety of ways (i.e., require child tries food; allow child to make separate meal; allow child not to eat; parent makes a separate meal; allows child to choose only food he/she likes; requires child to eat anyway). This study demonstrates that many parents experience child picky eating and report that it impacts family meals. It provides information on the specific ways pickiness impacts the family meal and how parents respond to pickiness. This study also provides guidance for future studies wishing to define picky eating or evaluate the prevalence of child pickiness.

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Keywords

family meals; qualitative; picky eating; food fussiness; food neophobia; picky eating; parent feeding practices; neophobia; family meals; child eating behavior

Introduction

While children are often described by their parents as being “picky eaters”, previous research has presented an inconsistent definition of picky eating. For example, picky eating has been defined in previous research as having a diet low in variety due to the rejection of foods (Dovey, Staples, Gibson, & Halford, 2008; Galloway, Fiorito, Lee, & Birch, 2005; Galloway, Lee, & Birch, 2003; Mascola, Bryson, & Agras, 2010; Rydell, Dahl, & Sundelin, 1995; Wright, Parkinson, Shipton, & Drewett, 2007). Other studies have defined and evaluated picky eating as the rejection of food textures, smell, and temperature (Smith, Roux, Naidoo, & Venter, 2005) or slowness in eating (Marchi & Cohen, 1990). Picky eating is also considered distinct from food neophobia (i.e., the reluctance to eat new foods) (Dovey et al., 2008), although food neophobia is sometimes seen as a trait of pickiness (Carruth et al., 1998; Ekstein, Laniado, & Glick, 2010; Fulkerson et al., 2002; Jacobi, Schmitz, & Stewart Agras, 2008; Shim, Kim, & Mathai, 2011). Because picky eating is not well defined, it is difficult to know the prevalence of picky eating in children and how to intervene with children who are picky eaters. One study showed that over 50% of mothers of preschool-aged children described their child as having selective eating behaviors (i.e., preference for food preparation methods, food rejection, food neophobia, and limited variety) (Shim et al., 2011). Another longitudinal study followed children ages 2–11 years old and found that 39% of the children were described by their parents as being picky at some point during the study (Mascola et al., 2010).

Despite not having an exact definition, previous research has shown some significant associations between child picky eating and both child dietary intake and weight status. Studies with young children (between birth–6 years) found that picky eaters were more likely to avoid fruit (Cooke, Wardle, & Gibson, 2003) and vegetables (Cooke et al., 2003; Jacobi, Agras, Bryson, & Hammer, 2003). Other studies with young children found that picky children were at increased risk of being underweight (Ekstein et al., 2010) or having poor growth (Wright et al., 2007). One study with older girls (9 years old) found that picky eaters had lower intakes of fruit, vegetables, and fiber; these girls were also less likely to be overweight (Galloway et al., 2005). Less is known about how picky eating affects the overall home eating environment such as family meals, although studies with parents of picky eaters describe an impact on meals, including negativity at meals and struggles involving child’s eating (Jarman et al., 2015; Marchi & Cohen, 1990; Mascola et al., 2010). As family meals have been shown to be associated with healthier dietary outcomes (Fulkerson, Larson, Horning, & Neumark-Sztainer, 2014; Larson, Neumark-Sztainer, Hannan, & Story, 2007; Neumark-Sztainer, Hannan, Story, Croll, & Perry, 2003) it is important to understand how picky eating may potentially decrease the benefits of family meals or impact family meal frequency. Additionally, understanding parents’ perceptions regarding how picky eating

influences family meals will potentially inform the development of interventions targeting picky eating during family meals.

There is limited qualitative data investigating parent's experiences with, or description of, picky children, which makes it difficult to know how parents define pickiness or how they see it impacting their child's dietary intake or the family meal (Jarman et al., 2015). Additionally, limited research exists regarding parents' response to picky children at the family meal. One study showed that parents reported the need to prepare separate meals (Mascola et al., 2010); another study found that mothers were more likely to pressure picky children to eat, although this was not specific to a family meal (Jani Mehta, Mallan, Mihrshahi, Mandalika, & Daniels, 2014); other approaches are unknown. Finally, much of the research on child picky eating focuses on young children (birth-6 years) (Carruth et al., 1998; Cooke et al., 2003; Ekstein et al., 2010; Jacobi et al., 2003; Shim et al., 2011; Wright et al., 2007); less is known about parents' experience with older children or how child pickiness impacts the family meal.

Because picky eating is a well-known concept that is not well-defined, it is important to qualitatively examine parents' experiences and perspectives regarding picky eating in order to understand its impact on families, including during family meals, and to guide future research. The main research questions being addressed in this study are: 1) How do parents describe child picky eating in the family?; 2) How do parents perceive picky eating to impact the family meal?; and 3) How do parents report responding to picky eating at the family meal? Gaining a better understanding of parents' perspectives of, and responses to picky eating will help guide future research on how to best assess pickiness and parental response to pickiness. It will also provide guidance on how to best support parents who perceive their child as being a picky eater, especially during family meals, and potentially guide potential future interventions.

Material and Methods

Study Design and Population

The current qualitative study draws from *Family Meals, LIVE!: Sibling Edition (SE)* study, which is ancillary to the *Family Meals, LIVE! (FML)* study conducted between 2012–2013 in Minneapolis/St Paul (Berge et al., 2014). FML investigated the risk and protective factors in the home environment associated with childhood obesity in children (target children) (n=120) from low-income households. One year after participation in FML, families were invited to participate in SE, a study designed to investigate: 1) longitudinal associations between family meal quality and child weight status, and 2) parent feeding practices in homes with siblings. Of the original 120 FML families, 110 participated in the first aim of SE (92% retention rate); 88 of these families had siblings in the home allowing them to participate in the second study aim. A family was considered to be eligible for the SE study if there was a sibling between the ages of 2–18 years old living in the home with the target child from FML who also shared the same parent/primary guardian. Data collection occurred in the participants' homes where the parent completed an in-depth quantitative survey and trained researchers obtained family members' heights and weights; participants in aim two also participated in a qualitative interview. All study protocols were approved by

the University of Minnesota's Institutional Review Board. All family members participated in the consent/assent process with trained researchers; participants over the age of 18 completed written consent and participants ages 8–17 years completed written assent. In addition, all children under the age of 18 years had a corresponding written parental consent. Researchers informed all participants that participation in the study was voluntary, that the decision to leave the study would have no impact on their relationship with their primary care clinic (i.e., from where they were recruited), and that their information would be kept confidential. Additional study procedures have been previously documented (Berge, Tate, Trofholz, Conger, & Neumark-Sztainer, 2015; Berge, Trofholz, Schulte, & Neumark-Sztainer, 2015).

Of the 88 SE parent participants, the majority were female (94%) with a mean age of 35 years old ($sd=7$). Parent participants were racially/ethnically diverse including, 65% African American, 17% white, 5% Asian, 2% Native American, and 11% mixed/other. The mean age for target children and sibling was 10 years old (target child $sd=2$; sibling $sd=4$). Participants were from low-income households, with 73% reporting a household annual income of less than \$35,000.

Qualitative Interview

Researchers trained in standardized interview protocols (Crabtree & Miller, 1992) conducted a semi-structured interview with parents (Berge et al., 2015). Interview questions explored the parent's perspectives of parent feeding practices, child eating behaviors and how both influenced family meals (Berge et al., 2015; Draxten, Trofholz, Tate, & Berge, 2016). Interview questions used in the current study included: (1) Describe what kind of eater [child] is.; (2) How does [child]'s eating impact what happens at family meals? (3) How does picky eating affect your family?; (4) What happens at mealtimes if [child] doesn't want to eat what is prepared?; (5) How do you influence what [child] eats?). Researchers were specifically trained to remain neutral during interviews; participants were assured that the interview was asking only for his/her perspective on family meals and parent feeding practices and that there was no right or wrong answer (Creswell, 1994). Researchers were also trained to use follow-up questions to further probe the parent regarding a specific interview question (Creswell, 1994).

Analysis

Parent interviews ($n=88$) were audio-recorded and transcribed verbatim. Coders (first and second authors of this study), coded all transcripts to ensure saturation of themes. To ensure reliability, coders double-coded and had consensus meetings on the first 20 transcripts. Double coding the first 20 transcripts allowed 95% inter-coder agreement to be reached. After the 20 transcripts, coders double coded and had a consensus meeting on every fifth interview. During consensus meetings, coders discussed any discordance in coded themes or placement of quotes. The full sample ($n=88$) was used to generate themes; however, the vast majority of themes were identified during the coding of the first 20 interviews. Using all 88 interviews, a final kappa coefficient of 0.75 was reached for the themes identified in this study. NVivo 10 software (NVivo 10, 2014, QSR International Pty Ltd), was used to code the qualitative data.

A content analysis approach was used to analyze the qualitative data (Elo & Kyngäs, 2008; Elo et al., 2014). Because little is known about parent feeding practices and child pickiness in the home environment, an inductive approach to analyzing the qualitative data was selected (Elo & Kyngäs, 2008). The first stage of coding involved the coders reading through the transcripts to gain an overall understanding of participant responses. Preliminary codes were not pre-determined, instead, they were created based on the initial transcript readings. After all interviews were coded, the codes were broken into sub-codes to organize participant responses. Finally, authors evaluated the sub-codes to identify major overarching themes. The goal of this paper is to present themes often reoccurring in participant interviews regarding picky eating. Using literature regarding qualitative research design as a guide, themes not represented by at least 15% of participants were generally excluded from the analysis (Creswell, 1994). Semi-quantitative results are presented as the number of families whose qualitative responses represented a theme. Themes are not mutually exclusive; for example, a parent's response may be included in multiple sub-themes. In addition, authors have chosen to use the word "picky" as a broad term throughout the paper as opposed to its many synonyms (e.g, fussy). Additionally, parents did not identify differences between the target child or sibling with regard to how they used parent feeding practices in response to picky eating in the interview transcripts. Thus, the qualitative themes are not stratified by target child versus sibling in the current study. Any parent, child, or other names used by the parent have been changed to ensure participant confidentiality. Quotes are labeled with the parent's race and relationship to the child, as well as the child's age, sex, and weight status (i.e., <85th BMI percentile (<85th) and >85th BMI percentile (>85th)).

Results

Research Question 1: How do parents describe child picky eating in the family?

Two main themes were found related to parents' description of picky eating (n=88). Themes included: 1) the frequency in which a child is described as being picky; and 2) how parents define pickiness (sub-themes: limited intake, not liking a few foods, textures or appearance, unwillingness to try). See table 1 for additional quotes.

Theme 1: Children are frequently described as being picky eaters

Over sixty percent (56/88) of parents reported having a child in the home that was a picky eater. One parent stated, "He's very picky. He does not like anything" [African American mother; 11 y.o. son, >85th]. Another parent said, "There's a lot of things he don't eat. He don't like chicken, he don't like shrimp—he love fish. But he's a picky eater" [African American mother; 7 y.o. male, <85th].

Theme 2: Parents define picky eating in a variety of ways

Fifty-six parents provided a definition of picky eating, of which four sub-themes emerged. The largest number of parents defined pickiness as not liking a few foods, followed by parents who described pickiness as having a very limited intake or refusing entire food categories. Third, parents labeled their child as a picky eater when the child was particular about textures or the appearance of food, and fourth, some parents described a child as a

picky eater if the child was resistant to trying new foods. Smaller themes also emerged involving a child's preferences frequently changing and the child picking at food.

Not liking a few foods—One third (19/56) of parents who described their child as being picky used the word picky when describing a child that did not care for one or a few foods. One mother said, “Now, Michelle, the younger baby, she’s kind of picky, like she don’t like macaroni” [African American mother; 4 y.o. female, <85th]. Another parent said, “Katie’s very picky also. But that’s more with meat. She’s okay with chicken if it’s off the bone, like chicken breast she’s fine and stuff like that, but like pork and ham and all that, she’s picking out every ounce of fat” [White mother; 16 y.o. female, >85th]. One mother said, “She is somewhat of a picky eater, but she does eat, like a good portion when she likes what is on the plate...There’s certain things that she doesn’t like, like egg salad, maybe spinach” [White mother; 10 y.o. female, <85th].

Very limited intake or refusing food category—Nearly one third (18/56) of parents who described their child as being picky described “pickiness” as their child only liking a few foods or not being willing to eat entire food categories; the most frequently avoided food categories were meat and vegetables. One mother said, “She eats very picky, she doesn’t eat vegetables, she just eats meats, breads and junk” [African American mother; 8 y.o. female, >85th].

Another parent stated,

She doesn’t eat too much meat, she’ll prefer eggs all day if I let her eat eggs all day and yellow things and salads and fruits... I like to refer to her as a semi-veggie. Because she kind of doesn’t eat—she might eat a nibble of meat every once every blue moon [Mixed race mother; 8 y.o. female, <85th].

One parent said,

This one [indicates child] is completely different as far as her eating habits. She has about a diet of 6 things only that’s she’s ate since birth. Yeah, she doesn’t like do the messy looking things. She’ll eat like tacos, she’ll eat noodles, chicken strips and pizza, that’s about it [African American mother; 10 y.o. female, <85th].

Texture or appearance of food—One-fourth (14/56) of parents described their child as picky because their child was particular about either the texture of foods or the appearance of food, including the smell of food. For example, one mother said, “She won’t even try if she doesn’t like how it looks” [African American mother; 3 y.o. female, <85th]. One parent said, “He’s picky about like the quality of foods (laughs). He’s very picky about like the textures and the colors...But if he likes something, he’ll eat a lot of it” [African American mother, 11 y.o. male, >85th].

Another parent said,

Well, with Xander, it’s the smell with him. He smell anything he eat, it’s the smell, so I have to make the smell something that if he go to smell it he won’t get turned

off, because he will smell it. If he don't like the smell, he will not eat it" [African American mother; 7 y.o. male, <85th].

Resistance to new foods—Sixteen percent (9/56) of parents experiencing child pickiness described their child as picky if they were unwilling to try new foods. For example, one mother said, "I could introduce certain things and she's like "No, no, no, no." She doesn't even have to even smell it. She'll take one look at it and be like "no" [Mixed race mother; 13 y.o. female, >85th]. Another parent stated, "Denise would be the picky one. She's a picky child, the one who, she doesn't want to eat some foods, she probably never tried them before and she look at it and be like "This is nasty. I don't want to eat that" [African American mother; 8 y.o. female, <85th]. Another mother said, "And of course they never had it, so they weren't even up for trying a bite. They're just like "We don't like it." We never tasted it but "we don't like it" [African American mother; 9 y.o. female, <85th].

Research Question 2: How does picky eating impact the family meal?

Thirty-six parents found picky eating to be disruptive to the family meal. First, many described picky eating as promoting meal-related stress. The second theme involved a parent altering meal preparation or making a separate meal for a picky child in response to the pickiness. See table 1 for additional quotes.

Theme 1: Picky eating promotes meal-related stress for parents—Parents who felt picky eating impacted the family meal expressed frustration or feelings of stress due to the occurrence of picky eating at family meals (23/36). Some parents found that picky eating led to wasting food. For example, one mother said, "It's not good because sometimes we make too much vegetables and then it will go to waste. So it's really hard" [Asian mother; 11 y.o. male, <85th]. Another mother stated, "But sometimes it do cause leftovers, which I consider waste, and I could have used—I could have cooked less and saved money, just maybe buy one bag instead of 2" [African American mother; 12 y.o. male, >85th].

Other parents expressed frustration regarding the need to provide separate foods or meals for picky eaters. For example, one mother stated, "I have to get up and fix a whole another meal. It's tiresome" [African American mother; 10 y.o. female, <85th]. Another parent said, "It can be stressful, especially if I had a busy day...it can be kind of stressful when I have to cook something totally different to make something she likes because she's very picky so, yes, it's stressful" [African American mother; 8 y.o. female, >85th].

Another mother stated,

How does picky eating affect our family? Temper tantrums have been tried. Absolute refusal to eat has been tried. So it's disruptive. How else would it affect our family? We try our very very very very best not to make a second meal or something. But if the kid straight up won't eat and she's been screaming and yelling at you for over an hour, we give in [White mother; 8 y.o. female, >85th].

Theme 2: Picky eating impacts meal preparation—Parents who felt that picky eating impacted their family meals described needing to regularly make a separate meal or

change meal preparation for a picky child (21/36). These parents were describing children who consistently required alteration to the meal preparation. The majority of parents described needing to plan an entirely separate meal for their picky child; some parents also spoke of substituting different foods for the picky child. For example, one mother said, “She doesn’t like some of the meat that I cook, some of the pork chops and the things, she’d rather have a burrito and I know that come pork chop night I need to have burritos as well for her for as an option” [White mother; 13 y.o. female, <85th].

Another parent said,

I don’t know. It’s hard for a picky eater. You just have to have another option for them. For example if he just like noodles...he just makes her own noodles and sits there with us while we eat rice or other menu that I’m making [Asian mother, 11 y.o. male, <85th].

One mother stated,

She’s the one that makes the choices hard because we have to remember what Anna eats and what Anna does not eat. Anna is more of a meat person so to say. She’s not really much of a... “Oh, I don’t want that, I don’t want this” so you have to find what she’ll eat and what she’ll eat enough of to sustain her [African American mother, 5 y.o. female, >85th].

Research Question 3: How do parents respond to picky eating at the family meal?

Theme 1: Parents respond to picky eating in a variety of ways—When asked “How do parents respond to a child refusing food served at a family meal?”, 77 parents (out of 88) provided a strategy, and six sub-themes emerged. The remaining eleven parents indicated that they did not have children who refused food at the family meal. Sub-themes included: the child has to try the food served at meals, the child makes a separate meal, the child can “take it or leave it”, the parent makes the child a separate meal, the child can just eat the foods at the meal that he/she wants, and the child is required to eat the food served. See table 1 for additional quotes.

Have to try the food: Over half (45/77) of parents said they required the child refusing food at a family meal to at least try the food. Parents expressed not wanting to force their child to eat a food he/she does not like; however, many felt that the child would like the food if he/she tried it. One mother said, “It’s a rule that they have to try it...I don’t make them but it’s just a suggestion, “Try it. Maybe you’ll like it. And we can start having this” [White mother; 13 y.o. female, <85th]. One father said, “They can try it, if they try it and don’t like it, I’m fine, they don’t have to eat it all but we’re not making something else just because they don’t like that” [White father, 13 y.o. male, <85th].

Another mother stated,

I make her taste everything. I make her—it’s way easier to have her taste everything. I had her taste some chicken today. “It looks nasty!” But she loved it. It was bourbon chicken and she’s never had it before and I made her taste it. So it’s just easier for her to try it [Mixed race mother, 11 y.o. female, >85th].

Child makes a separate meal: Nearly half (37/77) of participants said they allow the child to make another meal if he/she refuses what is served at the meal. Most parents indicated that the child knows how to make “easy” foods (e.g., hot dogs, cold cereal). Parents also indicated they allowed the child to make a separate meal in order to avoid having to prepare multiple meals themselves. For example, one mother said, “If you don’t eat what I eat, you got to eat a sandwich then. Get a piece of meat, lunch meat, some bread.” That’s exactly what I tell him. I’m not going to cook two dinners” [African American mother; 7 y.o. male, >85th].

Another mother said,

You know, usually he’ll try it or, and then if he doesn’t like it, he’ll usually find something to eat, and if he tries it and he doesn’t like it, you know, he can always make a peanut butter sandwich or he can find some alternative. And pretty much the same with Ben. I mean, he’ll usually, he doesn’t like what we have, he might pick one little thing and then have a bowl of cereal instead [White mother; 11 y.o. male, <85th].

One mother stated,

Yeah, there’s times, I mean there’s a few times that it happens like I make something and they be like they don’t want to eat. Well, I’m not fixing to cook a whole another meal, so you better eat you a sandwich, some ravioli some noodles, something quick [African American mother; 7 y.o. female, >85th].

Take it or leave it: Over one third (31/77) of parents reported not being concerned if a child did not want to eat a meal; most felt that the child would eat the meal if they became hungry enough. For example, one mother said, “And if they don’t eat it, that’s fine...he’ll be hungry, not me” [African American mother; 7 y.o. female, <85th]. Another father said, “I was brought up and raised, my parents always said, you’ll eat when you’re hungry, so they’re not too worried about it. You don’t want to eat, don’t eat” [White father; 13 y.o. male, <85th]. One mother stated, “Hayley’s a very picky eater, and she doesn’t eat a lot at a time. She’ll eat small amounts so by the time she wants—an hour after we eat, she’s like “Mom, I’m hungry.” And then I’ll say, okay, go back and finish your dinner” [White mother; 7 y.o. female, <85th].

Parent makes a separate meal: Over one third (27/77) of parents reported that they would make their child a separate meal if the child refused the food offered at dinner. Similar to the separate meal the child makes, parents commonly reported these separate meals to be “easy” foods (e.g., sandwich or noodles). One mother said, “I’m guilty. Sometimes I will cook her something else, make her a sandwich or something, you know. I’m guilty of that” [African American mother; 12 y.o. female, >85th]. Another mother stated, “Yeah, sometimes. Like if she just won’t eat it at all, and I just want her to eat something, I will try to go make her something else. Something fast like a sandwich or some noodles or something” [African American mother; 13 y.o. female, <85th].

One mother said,

I fix different things. Well, sometimes I do. I'm not going to lie. If Phoenix don't like it all, I'll make her a grilled cheese sandwich or something because I just feel, my daughter's got to eat something, right? [African American mother; 8 y.o. female, >85th].

Child only eats the foods they want: Nearly one fourth (17/77) of parents said they allow their child to eat the foods they like at a meal and not eat the foods they do not like or want. For example, one mother said, "If there's something that they don't like, they don't have to eat it because they can fill up off what else is there" [African American mother; 7 y.o. female, <85th]. Another mother said, "I cook everything the same, but they take out the things. So for stir-fry, if I put different vegetables in there, they just take the one that they want" [Asian mother; 11 y.o. male, <85th].

One mother stated,

It's a few things he won't eat when it's prepared but we just don't give it to him. We know what it is. We just don't put it on his plate...I just don't go with the back and forth. I know he don't like it. I just don't give it to him [African American mother; 9 y.o. male, >85th].

Child has to eat: One fifth (16/77) of parents reported that they require their child to eat the dinner served without exception. For example, one mother said, "She just have to eat it, there's no exceptions, you know" [African American mother; 10 y.o. female, >85th]. One mother stated, "You have to eat something because this is dinner." There's no getting up, I'm going to make a sandwich, I'm going to have a bowl of cereal, no there's no...this is dinner" [African American mother; 12 y.o. male, >85th].

Another mother said,

Basically it just comes down to, we just tell them you know they have to eat what we cook because it's, if we let them, you know, slide or we cook a separate dish than they'll do that every time. So you know, we're pretty stubborn in that too. We just tell them flat out, this is what we made for dinner or lunch or breakfast, and you're going to have some [Asian mother; 11 y.o. male, <85th].

Discussion

Of the 88 *Sibling Edition* parent participants, the majority reported having at least one child in the home who was a picky eater (64%). Parent's descriptions were in line with the definition of pickiness found in pre-existing literature (e.g., limited variety of food intake) and with food neophobia. However, parents also diverged from standard definitions of pickiness when they described their child as being picky when the child did not like one or a few foods (e.g., child not liking onions). It is not clear if parents frequently describe their kids as being picky simply because it is common in the parent's vernacular, or if a child's rejection of any food(s) can be as disruptive as a child who meets a more standard definition of "pickiness". Future research may benefit from including a more broad description of

pickiness and evaluating if there are some types (e.g., limited variety, textures or appearance) that are more associated with child outcomes like dietary intake and overweight status.

The main way parents reported pickiness impacting the family meal was by promoting meal-related stress by increasing the amount of time parent's had to spend in meal preparation. Given the stated prevalence of picky eating in this study, it may be surprising that a little less than half of participants (41%; 36/88) described pickiness as impacting the family meal. This results may be due to non-standard definitions of pickiness such as, "not liking one or a few foods," which may not be frustrating to the parent or require a meal alteration. Another explanation may be that parents allow their child to eat the foods he/she likes and not the food(s) he/she does not like, which also minimizes the need for an alternative meal. It also may speak to the ways parents have adapted to picky eating behaviors; they may choose to serve only foods that won't be rejected by the family or they may be so accustomed to child picky eating that they no longer see it as being stressful.

This study's qualitative data also provides possible explanations for why pickiness has been associated with lower dietary quality in prior studies (e.g., lower fruit and vegetable intake) (Cooke et al., 2003; Galloway et al., 2005; Jacobi et al., 2003). For example, in addition to eating a limited variety of foods, parents reported that alternative foods served to children displaying pickiness were frequently quickly-prepared foods that were not fruit or vegetable dense (e.g., macaroni and cheese, sandwich). Additionally, nearly half of parents reported letting their child make an alternative meal when the child refused the meal served; this was often because the parent wanted to avoid more food preparation. However, because of the children's age, the child often could only make simple foods not requiring a stove, which led to the alternative meal being more unhealthy (e.g., ramen noodles, cereal). Regarding pickiness affecting parents' meal-related stress, previous research has shown an inverse association between a positive emotional atmosphere at family dinners and child overweight status (Berge et al., 2014). Future research should consider examining the association between child pickiness at family meals and parent stress levels/emotional atmosphere of a meal and the resulting impact on child and other family members' weight and weight-related behaviors (e.g., dietary quality). Finally, due to the struggles parents reported regarding the influence of a picky eater during family meals, future research may wish to investigate the impact of pickiness on family meal frequency.

Results of the current study indicated that parents responded to child picky eating at a meal in a number of ways (e.g., offering a different meal, requiring the child to eat). Previous research has shown a relationship between pressuring a child to eat and child higher intake of energy-dense foods and fat (Campbell, Crawford, & Ball, 2006; Lee, Mitchell, Smiciklas-Wright, & Birch, 2008); qualitative data from this study suggest that allowing an alternative meal may also lead to the intake of unhealthy foods. There were also parents who showed more flexibility when confronted with child pickiness (e.g., child could "take it or leave it", child could choose the foods they wanted). It may be that the most beneficial approach to child pickiness at a family meal depends on the degree of pickiness displayed by the child. For example, a child who infrequently refuses a meal and is allowed to make a separate meal when he/she does refuse a meal may not experience any real negative outcome on his/her dietary intake. When providing guidance to a parent who reports child picky eating, it may

be important to understand both the parent's definition of pickiness, as well as the frequency that pickiness is exhibited. It is also worth considering that a child not meeting the standard definition of picky eating (e.g., avoids one or two specific food types) may impact family meal preparation or the meal's emotional atmosphere to the same degree that a child who does meet the standard definition of picky eating, if the parent perceives the child as being picky. This is a new finding in the literature and requires further research to establish the connection between parent perception of child picky eating and family meal quality (i.e., dietary quality, emotional atmosphere) and quantity (i.e., frequency).

There are both strengths and limitations to this study. This qualitative study included a large sample size (n=88), which included a low-income and minority population who are at higher risk of childhood obesity. Additionally, this study adds to the limited rich qualitative literature that exists regarding picky eating in children. A limitation of the study is the homogeneity of the population; 65% of the sample was African American, and the vast majority (94%) were mothers. While the researchers consulted literature to help ensure the trustworthiness of the interview and coding approach (Elo et al., 2014), some strategies recommended to establish trustworthiness, such as member checking of the qualitative themes were not used. All interview questions were asked of all participants. Therefore, asking a question such as, "How does picky eating affect your family?" may have led a participant not experiencing child picky eating to give a broad answer to the question. Additionally, future research should consider examining parent feeding practices related to child pickiness around specific food types (e.g., beverages, fruit and vegetables, proteins, energy dense foods).

Conclusions

Findings from the current qualitative study indicate that parents commonly report experiencing child picky eating. In addition, new findings from the current study indicate that parents define child pickiness in a variety of ways, with some being consistent with previous research, and that regardless of how child pickiness is defined, parent-perceived experience of child pickiness may impact on the family meal. Providing guidance to parents experiencing child pickiness (e.g., making sure healthy options are available if an alternative meal is offered or allowing some flexibility at family meals) may help improve both child dietary intake, as well as the emotional atmosphere during family meals. Results from this study also offer suggestions for future research trying to define pickiness, evaluate the prevalence of child pickiness, or develop interventions to reduce the influence of child picky eating during family meals.

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Table 1

Additional quotes from themes and subthemes of qualitative analysis regarding weight talk, Family Meals, LIVE!: Sibling Edition.

Theme or subtheme	Quote
Research Question #1: How do parents describe child picky eating in the family?	
<i>Theme: Children frequently described as picky eaters</i>	But Anthony, every day I see him, if he doesn't like it, he won't take it, he'd rather starve. So I mean it's hard to force him to eat [Asian mother; 11 y.o. male, <85th].
	He's picky, super picky, and he gets that from Dad [African American mother; 11 y.o. male, <85th].
	He's our picky eater. I think there's one in every family. My husband was the one in his family [White mother; 7 y.o. male, <85th].
<i>Theme: Picky eating was defined in a variety of ways</i>	
<i>Subtheme: Not liking a few foods</i>	She don't have a problem with vegetables and fruit and things like that. Certain meats she don't care for. Onions she doesn't care for [African American mother; 12 y.o. female, >85th].
	Sandra's the picky eater. So won't eat certain foods at all [African American mother; 14 y.o. female, >85th].
	She's a picky eater...she don't like carrots or like chicken [African American mother; 13 y.o. female, <85th].
<i>Subtheme: Very limited intake or refusing food category</i>	Well, he don't want much vegetables, and meats, he's more of a junk food person, you know. As far as what he'll eat, like chicken, that's about the main meat that he'll eat, but I'm going to say meats and vegetables is the ones that he eat less [African American mother; 11 y.o. male, >85th].
	She's picky. She hates vegetables [Asian mother; 12 y.o. female, >85th].
	Oh, she's picky. She's like a meat person and like, she likes the rice but not as much as Kayla does but she's meat like no, she don't want vegetables, I have to force the vegetables on her plate and she likes potato chips and pop—well, she takes a lot of water, I can't say pop but she doesn't, she's not the healthiest [African American mother; 12 y.o. female, >85th].
<i>Subtheme: Textures or appearance of food</i>	Super picky, like he smells his food before he eats it, he won't eat it if it don't look like it should be ate or whatever. Like if you look at it and it doesn't look appealing, he's not going to eat it. Or he's—you got to force him, put it that much [African American mother; 11 y.o. male, <85th].
	He doesn't like texture in his mouth, like he can eat certain things if it's like slimy or doesn't feel right. He won't eat it. That's it [African American mother; 9 y.o. male, <85th].
	Jermaine like he eats food, but he really don't like mushy food like rice and mashed potatoes and stuff, like just rice, mashed potatoes. But he eats, like he like food. He went through a stage, he didn't want to eat pork anymore so I didn't make pork for us [African American mother; 7 y.o. male, >85th].
<i>Subtheme: Resistance to new foods</i>	Shannon, she's kind of a picky eater to some aspect. She's picky when it comes to trying things new and she just likes what she likes, you know [African American mother; 10 y.o. female, >85th].
	And half the time it's not even, you know, it might be something she's already tasted before, but she looks at it, she's like "I don't want to eat that." So it kind of puts a negative vibe on our dinner [Mixed race mother; 13 y.o. female, >85th].
Research Question #2: How does picky eating impact the family meal?	
<i>Theme: Picky eating promotes meal-related parent stress</i>	Frustrating at times—we don't have a lot of time, you know. I don't have a lot of time to prepare certain meals or to cook certain meals so when I do, I expect you to eat it, you know? Eat dinner. And her taking time out of what I'm doing or not wanting to eat it or, yeah, just being real picky sometimes just gets frustrating. But like I said, it depends on my mood at that time [African American mother; 8 y.o. female, <85th].
	Well, it makes me frustrated because then it's like she wants me to cook her her own meal. We can't afford to have two different kinds of meal at night, you know. I normally will let her make something else, you know. I don't know. I want her to eat though, so [White, mother; 13 y.o. female, <85th].

Theme or subtheme	Quote
	It affects what you can buy. It affects the choices. I'm not going to lie, like from an adult standpoint, you get so sick of eating the same stuff just because you know that's what everybody's going to eat, everybody's going to like it. There's going to be enough of it for the budget. (laughs) And then you end up stuck in the same cycle of meals [African American mother; 7 y.o. male, >85th].
<i>Theme: Picky eating impacts meal preparation</i>	Well, she has to have a whole different meal (laughs) She can't eat what we eat. So it was like just different all the way around [African American mother; 3 y.o. female, <85th].
	Because then I have to be careful what I buy and cook a whole another dinner from the dinner that we have prepared to eat for our family [African American mother; 13 y.o. female, <85th].
	Except for Annette, with her we make exceptions because she, there's so many things she doesn't eat [Mixed race mother; 13 y.o. female, >85th].
Research Question #3: How do parents respond to picky eating at the family meal?	
<i>Theme: Parents respond to picky eating in a variety of ways</i>	
<i>Subtheme: Have to try food</i>	"You want corn?" "No." "You want this?" "No" so they get a no thank you helping...that's the helping you're going to get even if you don't want it. It's smaller than a normal helping because a lot of times the stuff they want they don't like [African American mother; 5 y.o. female, >85th].
	I'll just-I'll make her try it but if she don't like it, let her eat something different, but she at least has to try it [African American mother; 13 y.o. female, <85th].
	We just do "You have to eat 3 bites of it" or "You have to eat this much of it, a little section of it" [African American mother; 7 y.o. male, <85th].
<i>Subtheme: Child makes a separate meal</i>	Usually I would tell her a couple of other choices that she could possibly do herself, especially if it's a meal that I cook, and take the time to cook, I'm not going to take a lot of time to cook something else. She's old enough now where she can make Rahman noodles or macaroni and cheese. If she doesn't like it, then she's on her own [White mother; 10 y.o. female, <85th].
	I guess it doesn't really. He's old enough where we really don't have any issues of you know causing trouble during meal time. Like I say, you know, the only thing would be something that he really does not care for, then I say go off and make yourself a can of soup (laughs) or something like that [White mother; 11 y.o. male, <85th].
	Yes, yeah, because she's old enough. I mean, if she wants to make something else, it's pretty simple. She can make like, microwave some hot dogs or eat, make a bologna sandwich and potato chips or something [African American father; 13 y.o. female, <85th].
<i>Subtheme: Take it or leave it</i>	A lot of times she—my role is, if I cook dinner and you don't like it, then you don't eat. So if she doesn't like it, then she doesn't eat anything [African American mother; 9 y.o. female, >85th].
	Well, she always likes to eat too. But if there comes a time when she doesn't, I'll just wrap it up for her and she'll eat it later when she feels like eating it [African American mother; 11 y.o. female, >85th].
	Usually that means "No, I'm not hungry. I don't want to eat" "Okay, fine. Don't eat" [African American mother; 9 y.o. male, >85th].
<i>Subtheme: Parent makes a separate meal</i>	Sometimes it can be frustrating because you've got a set meal, this is what you need to eat, and then she'll come and she don't want to eat this, she wants to eat something else. And then you got to make something else. Well, I'm not going to cook something else, but I'll make something that's kind of fast like some cereal or something. [African American mother; 8 y.o. female, <85th].
	I'll make him something quick so that he eats with everybody else [African American mother; 13 y.o. male, >85th].
	It doesn't happen very often and if it does, I'll usually offer him a sandwich [White mother; 7 y.o. male, >85th].
<i>Subtheme: Child only eats the foods they want</i>	Picky eating doesn't, I don't like being picky eaters, never really had a choice, they can try it, if they don't, if they try it and don't like it, I'm fine, they don't have to eat it but we're not making something else just because they don't like that. They can pick out one, two or three of the other items that they do like [White father; 13 y.o. male, <85th].

Theme or subtheme	Quote
	They just eat, if they're not hungry and they're not in the mood to eat what was made, you know, I'm like okay, well you know—because there's always at least one to two components that I know that they're going to eat within our meal [White mother; 7 y.o. male, <85th].
	It's usually a struggle and usually it's give and take, it's like pulling teeth. I at least say "Eat 2 bites of it" or something or "try something else, eat everything else." If she doesn't like something it's like eat what else, like if you like the rice, eat the rice. If you like the vegetables eat the vegetables. Don't eat the meat if you don't want it. So I have to kind of, with her, it's just like a power struggle [Mixed race mother; 10 y.o. female, <85th].
<i>Subtheme: Child has to eat</i>	Actually, I was raised that parents, when parents cook, kids don't have an option... You eat what your mom puts in front of you [African American mother; 11 y.o. male, <85th].
	But if he, last night we had the same problem, or earlier in the week he had a fit about not wanting to eat something, then I just kind of make him eat it [African American mother, 11 y.o. male, >85th].
	Her "I don't want that" "You haven't even tried it yet. How do you know you don't want it?" And I make them. Ain't no such thing as "I don't eat" in my house [African American mother; 7 y.o. female, >85th].