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"It's Making Memories": A Qualitative Investigation of Family Mealtime Cognitions, Barriers and Strategies for Success of Parents and School-aged Kids

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Abstract

Objective: Family meals, particularly those occurring in calm environments, are associated with numerous health benefits for both children and parents. However, families often struggle to share meals, with the frequency declining as kids get older. This qualitative research study aimed to explore the factors influencing family meal behaviors.

Methods: Parents (n=38) and school-age children (n=37) participated in focus group discussions guided by Social Cognitive Theory.

Results: Content analysis results indicate that parents and children believed family meals were important, promoted communication, and strengthened family bonds. Parents and children reported that a calm, enjoyable, conflict-free mealtime environment bolstered mealtime enjoyment and increased the likelihood of regular family meals. Busy schedules were the greatest barrier to family meals identified by children and parents. Strategies for overcoming barriers to family meals identified by parents were similar to those shared by kids and included keeping mealtime conversations positive, altering schedules to accommodate family mealtime, planning ahead, using time saving strategies and recruiting kids to help with meal preparation.

Conclusion: This qualitative research study provides novel insights into parents' and school-age children's cognitions (e.g., beliefs, attitudes), barriers, and facilitators related to family meals. Consideration of these insights during the development of nutrition education interventions has the potential to improve intervention effectiveness in increasing family meal frequency.

Keywords: Parent; Child; Family meals; Focus groups; Theory; Qualitative analysis; Mealtime

Introduction

Frequent family mealtimes, particularly those that occur in calm, relaxing environments, are associated with numerous physical and psychological health benefits. For instance, adults and children in families who regularly eat meals together tend to have healthier body weights [1-3], which is particularly important given that 1 in 5 children in the United States are obese [4]. Frequent family meals also correlate with improved diet quality, including greater fruit and vegetable consumption and higher intake of several vitamins and minerals [5-8]. Additionally, sugar-sweetened beverage intake is inversely related to family meal frequency [5,8]. These nutritional benefits may stem from the opportunity family meals afford parents to role model healthy eating behaviors for their children [9].

Family meals also offer mental health benefits. Parents who regularly share meals with their children report better emotional well-being. For children, frequent family meals give them feelings of stronger family support and higher self-esteem [10,11]. Both adults and children feel regular mealtimes together strengthen family bonds [12,13]. These emotional benefits may result from the opportunities family meals provide for regular communication.

The family meal environment can impact the overall beneficial outcomes of family meals. For instance, a warm and inviting atmosphere where parents and children engage in positive interactions (food and non-food related) is predictive of healthy child body weight [14]. In contrast, eating while watching television is associated with poorer diet quality and greater calorie intake than when meals are free from the distraction of television [15-17]. Children tend to have healthier body weights and diets when the television is turned off as well as when meals are eaten at a kitchen or dining room table [18,19]. TV watching also can affect mealtime satisfaction-families who watch television while eating perceive the meal to be less enjoyable [16].

Families with children of all ages struggle to share meals often with the frequency of family meals declining as kids get older [20] yet most published family meal research has targeted families with adolescent children. Understanding the factors influencing family mealtime, including cognitions, barriers, and facilitators, could assist in the design of more effective, theory-driven interventions that enable families with younger children to realize the benefits of frequent, enjoyable family mealtimes. Therefore, the purpose of this qualitative research study was to examine these factors in both parents and school-aged children (ages 6 to 11). The findings will inform the development of materials and programs aimed at promoting family meals to families of school-aged children.

Methods

The Institutional Review Board at the authors' universities granted permission to conduct this study. Parents gave written consent for themselves as well as their children. Before the focus groups began, children gave verbal assent.

Sample

Parents from the states of West Virginia, Florida, and New Jersey in the United States, with one or more school-age children (aged 6 to 11 years) living in their home, were invited to participate in focus groups. Recruitment notices indicated the focus groups would last about one hour and would discuss simple improvements families could change in their home environment and lifestyle to support optimum child health and development. Recruitment notices were distributed electronically (e.g., email, websites) and in paper format to various community sites (e.g., schools, worksites, houses of worship, community centers). Parents completing a focus group were compensated \$25. Recruitment materials targeting parents also indicated that similar topics would be discussed in focus groups with 6- to 11-year-old children and invited parents to allow their children to participate. Children completing the 30 minute focus group discussion received \$15 for participation. Parent focus groups were conducted in English or Spanish, per the parent's primary language. All child focus groups were conducted in English because these participants were fluent in English, including those who were Latino. Parents and children who participated in the focus groups were not necessarily from the same family and no one from the same family participated in the same focus group. Recruitment and focus groups were conducted during spring, summer and fall of 2017.

Instrument

All focus group participants answered a short survey that gathered demographic data (e.g., highest education level, age) and indicator behaviors related to family meals (e.g., number of days per week families consumed meals together). Each focus group was conducted using standard procedures [21] by a team comprised of two trained researchers, one of whom served as the moderator and the other as note-taker.

A semi-structured focus group guide was used to conduct the focus groups and ensure uniform data collection across states.

Separate, but analogous, focus group guides were used for parent and child focus groups [21]. The goal of all focus groups was to increase knowledge of parent and child cognitions toward family meals and to determine factors affecting the frequency of family meals and strategies families used to overcome barrier to family meals. The focus group guide was based on key Social Cognitive Theory constructs [22-24] because it is well-suited to the development of home-based interventions focusing on families. Social Cognitive Theory centers on reciprocal determinism, a concept that describes the simultaneous effect of personal cognitions and behaviors on the environment as well as the effect of environment on cognitions and behaviors [22-24]. Changes made in an environment, such as the home, may facilitate behavior change. These environmental changes can result from gains in knowledge, value placed on the likely positive outcomes of behavior change, skills (e.g., strategies for overcoming environmental barriers to behavior change, application of behavior change facilitators to behavior change), and self-efficacy for performing a behavior [22-24].

At each focus group, the note-taker took comprehensive notes of the moderator's and parents' interactions. Within 24 hours of the conclusion of the focus group, the note-taker reviewed the notes to ensure accuracy, clarity, and completeness. The focus group moderator then reviewed the notes within 48 hours of completing the focus group, after which the moderator and note-taker again reviewed the notes and discussed any differences to reach agreement and finalize the notes. All Spanish focus group data were translated into English by the focus group note-taker and checked by the moderator using the procedure above. Additionally, data from each new focus group were compared with completed focus group data on an ongoing basis to determine when data saturation (or information redundancy) was reached and data collection should terminate [25,26].

Data analysis

Survey data were summarized using SPSS version 21.0 (Chicago, IL). Three researchers independently content analyzed qualitative focus group data to identify themes [21,25]. Standard content analysis procedures were employed because they generate objective, systematic, and measurable reports [27] that enable researchers to derive "replicable and valid inferences from the data to their context" [28], p. 21. Researchers compared their independent content analyses to reach consensus [30,31]. A quote replete qualitative data reporting method was used because "qualitative presentation of results rests on verbal expressions", [29], p.14 and as such, provides evidence supporting researchers' interpretation of study findings [30]. The quote replete method also was used to provide a rich understanding of how the study participants express their family meal cognitions. Elucidating how the study audience verbally expresses themselves enables health communicators to tailor health communications on linguistic patterns.

Results

A total of 38 parents participated in 1 of 13 focus group discussions about family meals. Participants were mostly mothers (95%). Nearly three-quarters had at least some post-secondary education and their mean age was 37.32 ± 5.67 SD years. Parents reported an average of 2.34 ± 0.63 SD children under the age of 18 living in their homes. Most parents participated in English vs. Spanish focus groups (68% and 32%, respectively). Data were collected in three states, with geographic distribution being fairly even across these areas (FL $n=12$ participants; NJ $n=12$ participants, West Virginia $n=14$ participants), averaging 3 parents per group.

A total of 37 children participated in 1 of 12 focus group discussions about family meals. Children were evenly distributed by sex (males=51%) and averaged 8.73 ± 1.69 SD years of age. Distribution across states was even, with 4 focus groups held in each state (FL $n=12$ participants, NJ $n=13$ participants, WV $n=12$ participants), averaging 3 children per group.

Parent focus groups

Survey results indicated that parents reported eating a family meal 6.63 ± 3.62 SD days per week and agreed to strongly agree they looked forward to family mealtime (4.33 ± 1.01 SD on 5-point scale). Qualitative focus group data did not vary by language or geographic location, so data were aggregated.

Parents' attitudes toward family meals: The vast majority of parents agreed family mealtimes were important, with the most commonly mentioned benefit being strengthened family bonds. Parents reported family meals "bring the family together" and provide "quality time" to build "family unity" and promote "bonding". "If we didn't have dinner and sit down together, then we would all just be living in the same house, living in the same space, going about our days separately".

Parents also saw family meals as an opportunity for communication, indicating that family meals are a "time for information exchange", "talking about the events of the day", and things kids "want to look forward to". For some, mealtime was the "only time we can all sit and talk to each other about what's going on". Mealtime conversations were seen as a way for parents to "learn their [kids'] perspective of the world", "develop a linkage of trust" and teach kids "the importance of family, the importance of sharing, and being able to open up to their parents" and "let kids know that you (parents) are there for anything".

Parents also felt family meals gave them a chance to pass on values, goals, and family "culture". Family mealtimes provided opportunities to teach kids important life lessons, such as "the concept of family" and "how a family is supposed to work" through the interactions children observe and engage in at mealtime ("kids see my interaction with their dad and get to see what a happy relationship looks like, which helps shape their relationships with friends or future relationships"). Mealtime also offered a way to teach "manners" and prepare children to behave respectfully when eating at "someone else's house". Role modeling by "displaying healthy eating habits" was another way

parents used family meals as a teaching occasion, and as a result, parents felt that having family meals "makes (families) eat healthier".

To keep mealtime conversations interesting for children, parents sometimes played word or question-and-answer games with them. Parents also tried to be sure that all of their kids got an opportunity to speak. "My girl wants to talk the whole time and my boy-we have to ask him. I try to balance it out so he can talk". A few parents commented that mealtime "is a time to eat, not to chat" and "when the food is cleared, it is time for family discussion".

The few parents who felt family meals were not particularly important indicated that they had too little time for this activity, were not good cooks, or the primary food preparer's work schedule did not support preparation of family meals. Another reason given for not feeling that eating together as a family was important was because family members were hungry at different times and it was more important for them to eat when hungry than eat together; although one parent coped with this issue by having "all family members sit together even if they've eaten, to share and spend time with their dad".

Parents' attitudes toward mealtime emotional ambiance: Parents were aware that the emotional ambiance at meals can have an impact on families and believed that "it's important to keep mealtimes positive". Parents reported wanting "mealtimes to be a social and enjoyable experience" because "when (kids) are relaxed, they are more likely to eat" and "positive outcomes make (families) want to (have family meals) again". Plus, one parent commented that mealtime atmosphere was important to her because, when they eat together as a family, "it's making memories", and she wanted those memories to be positive.

Parents also wanted to avoid any "negative associations" with mealtime because "kids will start to associate food with negative feelings, so it might, in the long run, cause problems with eating". Avoiding arguments at dinner was a priority because "when arguments start during the meal, it can hurt the stomach". Parents also sought to avoid distractions during meals, which "affects (kids) a lot, especially if they are fighting or arguing, then they won't want to eat their meal".

Parents' attitudes toward using technology at mealtime: Technology is another mealtime distraction many parents recognized. Some reported having rules against the use of technology at meals ("the TV gets turned off", "our rule is no cell phones") because they observed that technology use at mealtime was not "improving the quality of the time". The primary reason parents gave for limiting technology was to promote family communication at mealtime. One parent explained, "They (children) won't communicate with us parents with the TV on". Parents aimed to limit their own mealtime distractions as well because they wanted "to undividedly give the family attention". As one parent shared, "I certainly try to not have a phone in my hand and try to pay attention, talk with my kids, and listen".

Parents also chose to eliminate technology during meals to promote mindful eating. Some understood that "when you eat in front of the TV, you're not present and you eat more" and

“you tend to eat mindlessly, you miss cues, you overeat, you don't choose healthy (foods)”. Parents reported that even having the TV on in another room and not visible at mealtime is distracting because kids will “listen to the show and not talk, so they will eat more”. Although most parents reported distractions from technology were undesirable, one mother used TV as a way to improve intake at meals because, “if she (my daughter) is talking, she won't eat”.

There were exceptions to turning off technology during meals. For example, eating family meals in front of the TV was considered an occasional treat for some families. Some parents allowed children to watch TV at mealtime “once or twice a month if there's no school the next day” or “if something special just came on TV and the kids really want to watch it”. Other parents reported having weekend movie nights, which included eating a meal while watching the movie.

Parents' perceptions of how family mealtimes changed as children got older and entered elementary school: Parents noted a key change that occurred between preschool and elementary school that influenced family meals was that their kids had become “a lot busier than when they were preschoolers”. This change made it “harder to have a set dinner time” because “kids have activities that interfere with dinner time”. Another factor that complicated family meals was “having children of different ages” who have varying schedules. Parents of families of children with varied ages reported “having more meals with the little ones (younger kids), than the big ones (older kids)”.

Parents also noted that, “what they (children) prefer to eat has changed” since preschool, “because of what they have at school” and “the influence of friends' food choices”. However, parent perceptions of the effect of these changes on family meals ranged from making it much more difficult to no effect to making it easier. The few who felt kids' new preferences made it “much harder”, indicated that when kids “were younger, I could give them food and they would eat it”, “now they want cheeseburgers” and other foods they eat at school. The many parents who felt their children benefited from exposure to new foods commented, “Children want to try new things” and want “things that they have tried outside of the house”. These parents expressed support for kids' requests; for instance, “kids are asking for new things, so we are trying new things”.

As children became “more independent” and mature, parents found family meals to be less complicated because kids “can eat by themselves, so I (parents) don't have to be on top of them”. Parents also remarked that “food is less complicated for them (elementary school kids) and they eat more varied”, perhaps because as they get older “kids are willing to try new things”. Parents went on to add that, as kids have matured, they “are able to help, so it's not solely on the parents” to prepare meals and that kids now could “understand the amount of work that goes into cooking meals”. One mother reported that now that her kids were older, she feels they better appreciate the work she puts into the meals because they always thank her after the meal. Parents also noted that as their kids grew older, they became “easier to communicate with”, and now parents enjoy

“hearing the stories they [kids] have from their day” and “listening and getting to know their kids more” at mealtime.

Parents' perceived barriers to family meals: By far, the most common barrier to family meals cited by parents was busy schedules. Parents reported, “When they (kids) start doing activities, it makes it hard to have meals together” and noted they often “end up eating in the car” on the way to and from afterschool activities. Sports activities were the most common afterschool activity mentioned by parents. Parents also reported their own work schedules interfered with family meals, especially when they “have a lot of afternoon and evening meetings” or “get home late from work”.

Lack of pre-planning, limited meal planning skills, and effort required to prepare meals were other barriers to family meals. Some parents believed that they were not good cooks and felt that “cooking makes it stressful” to have family meals. Others reported feeling “exhausted” at the end of the day, which made cooking and cleaning up after a family meal challenging. Parents also reported that when their children “put up a fight about food”, they sometimes give in and let kids have their way, which “typically doesn't involve family meals”.

Another obstacle to family mealtimes was negative mealtime emotional ambiance. Parents and kids being in a “bad mood”, “tired”, “annoyed”, “angry”, “over-stressed”, or having “a bad day” made family meals difficult, especially when a family member was “not receptive to conversation”. “Daily worries” can follow parents and kids home from work and school and having “too much on (their) mind” can make “centering (oneself) for a conversation” with family members at mealtime “difficult and tiring at the end of a long day”. Parents reported that family arguments make mealtime less enjoyable and found that many quarrels at family meals “come around battling my child over what he is eating” particularly when “kids aren't willing to try new foods”. Discussing unpleasant topics (e.g., upsetting news stories) or using family meals as a time to correct poor behavior by “talking about what went wrong during the day and ways they could improve” also diminished the quality of mealtime ambiance.

Parents' strategies for overcoming barriers to family meals: Parents suggested numerous strategies for overcoming barriers to family meals. Some recommended making family meals a “priority” by avoiding becoming “overscheduled” and not “planning activities around dinner time” so that there is “enough time to do what's important”. Other parents suggested “changing dinner time” to accommodate busy schedules and making these meals “a routine” or a “habit” because when family members “expect it (family dinner), it's easier”. Parents found motivation to have family meals by “remembering how (our family is) able to spend time together when we eat together”.

Parents took advantage of the little time they had for family meals by “eating out due to a rush of time”, “eating meals in the car”, encouraging “all family members to sit together even if they've eaten”, and “using weekends because ... there's just more time”. Parents felt that family meals “don't have to be long if you are busy, five minutes of talking is enough” and

emphasized that family meals “don’t have to be perfect” and “it really doesn’t matter what you are eating”-it can be “something simple” just “as long as you have most of them (family members) together”. Parents noted that even meals in the car could be considered family meals if families “turn off the radio and talk”.

Parents noted that planning ahead was a facilitator to having family meals. They mentioned “pre-planning to make it run most efficiently”, and “structuring meals according to the schedule and what (the family) has time for” and making a “calendar” or “schedule” of meals. For example, one mother reported, “planning picnics when we (the family) are not able to eat at home (due to busy schedules) because that is healthier than McDonald’s”. Planning ahead for shopping trips by “knowing what the meals are for the week” and completing “one big shopping trip” were other ideas shared by parents. They felt this “makes it easier because I know we have all of the ingredients” and “it is also easier to stay on budget” because parents are not “going to the store every day and buying whatever we want” and it helps families “avoid the need to go to restaurants”. To make meal planning easier, parents used online resources like Pinterest for meal ideas and involved the whole family by providing a range of meal choices and “letting the kids choose some meals”.

Time-saving tips mentioned by parents included “using paper plates to avoid having dishes”, preparing meals in a slow cooker during the day, and ordering groceries online and having them delivered. Other parents used “meal delivery services”, such as Blue Apron and Hello Fresh, to eliminate the need for making shopping lists, grocery shopping, and meal planning, which parents found to be “hard”. Other ways parents saved time was to “get kids involved” in meal prep, let older kids “learn to cook and participate”, and have older siblings watch younger kids while parents prepare meals.

Several parents felt that “everyone should share the meal together and have a role in preparing the food” and therefore, “engaging the whole family” in meal preparation was another way that parents made mealtimes enjoyable. Parents involved kids by having them “help cook and set the table” or “help pick meals” and giving kids “some power and decisions, even if it’s just what bowl the food goes in”. Kids were given “responsibilities, like chopping or stirring” and parents tried to keep things “fun and engaging”. Parents understood that “if you get kids involved, they will also be more excited and willing when it is time to sit down for a meal” and that when kids cook, they are “excited to see how the food turned out” and are more likely to try new foods.

To make mealtimes enjoyable, parents tried to make family meals a “fun experience for the family” by creating an environment that is “slower and less stressful”. Parents used a range of strategies to promote a positive mealtime ambiance. Some found that “prepping themselves” to prevent daily problems from carrying over to mealtime and having a routine for family dinners was helpful for “getting (the family) in the proper mindset before eating”. Parents also reported having consistent dinnertime conversation topics that have been the same “ever since the kids were little”, such as “discussing what

happened throughout the day” or “asking what was your favorite part of the day”. Parents felt that sticking to positive conversation topics, “idle chit chat, like learning about their friends”, “making jokes and laughing”, and “letting each one have their turn talking” at mealtime were things that “everyone enjoys” and kept the mealtime mood enjoyable. Some parents used props to keep the family engaged in pleasant conversation, such as a “question and conversation jar... with fun and thought-provoking questions to promote conversation”. Other used “would-you-rather”, “true-or-false”, and spelling games to keep family meals upbeat and fun.

Strategies parents used to prevent picky eaters from casting a negative aura over meals were to serve “things that you know kids will eat”, “having enough variety so that (all family members) can find something they like”, and serving meals where “there’s at least one thing on the plate that everyone likes”. Parents also prepared their picky eaters for mealtime by letting them know ahead of time what would be served so that they would “be more accepting and it would be less of a battle”. Other parents chose not to go out of their way to accommodate picky eaters, commenting that they “make one dinner, and everyone has to eat it”, which benefits the parent because there is “less mess, less cleanup, and less preparation with one meal”. Parents also found that “if you just ask them (kids) to try things, they may be more willing” to eat what is served than nagging them. One pointed out that, “if I help them make things more routine and habit, they do it on their own and more willingly”.

Parents also had strategies for minimizing arguments and negative conversations at the dinner table and diffusing tense situations when they arose, such as separating siblings who are arguing “until they calm down”. Parents repeatedly mentioned using techniques for keeping conversation pleasant, such as “redirecting topics to something more positive” or “more pleasant to calm them down” and “looking for other conversation topics if there are conflicts”. Parents also reported saving serious conversations and discipline for “a time other than when the whole family is together”.

Some parents used rewards to keep family mealtimes calm and pleasant. One remarked that, I give “rewards for trying new foods, such as desserts or activities”. Another commented, “My children love dessert, so if there is a battle about what they are eating, I can usually get them to eat in order to have dessert after”. On the other hand, some required children to eat what was served and, if left uneaten, would repeatedly serve it until it was eaten, after which “the child was free to eat other food”.

Parents’ perceptions of their effect on child mealtime behaviors: Parents understood that their behaviors at mealtime have an impact on their children and felt that they had to “set an example” and “be more alert to their behaviors in front of the kids” because “kids notice” what parents are doing and will mimic them. For example, “if you are on your phone, your children will want to also be on their phone or iPad”. Some were aware of the impact siblings have on each other, commenting, “I try to remind my older one that his (younger) brother is watching”.

Parents specifically mentioned role modeling in relation to picky eating. They reported that “kids are more likely to try (new foods) after they see it on their parents’ plates”, which makes them “more adventurous eaters”. Additionally, parents discussed the importance of modeling mealtime etiquette so that kids “know how to act when we go out in public” and “they are more respectful and follow examples when dining with others”. Parents also felt that their own mealtime behaviors will influence their children throughout their lives. Many understood that if they foster frequent positive family meals, they will instill that value in their children and “then they (kids) will always have meals like that”.

Children’s focus groups

Survey results indicated that children ate family meals an average of 5.37 ± 2.38 SD days/week and helped prepare family meals an average of 1.50 ± 2.21 SD days/week. Focus group data were similar across child age groups and, thus, are aggregated.

Children’s attitudes toward family meals: Most kids felt that family meals were important because “eating dinner as a family helps us stay healthy”, “makes us (family members) feel closer”, and helps us “communicate better”. Some kids felt eating together was important even though they did not have regular family meals (“Important, but we don’t do that”).

Kids reported they “want everyone to be together at family meals” because “family is a big deal” and they “enjoy spending time with family”. Kids also commented that “I like to be able to have the family together and talk, so we know what is going on with everyone and we can help each other out”, “otherwise we never get a chance to be together”. They indicated that during mealtime they “talk about daily activities” and “what happened in our day”. They also felt that “it’s fun to eat together” and eating together “makes us feel closer and more involved with each other”. Some were not sure they needed family meals to get together as a family: “we usually eat dinner together, but it’s not important (because) we are just together (a lot)”.

Children’s perceptions of their parents’ attitudes towards family meals: Kids felt that family meals were important to their parents because “parents make a big deal out of it, so it is pretty important” and parents “expect the children to come to family meals even if they were mad or upset and locked themselves in their room”. Kids believed that parents “think it’s enjoyable to spend time at family mealtimes”, “like having conversations at family mealtimes”, and like to “get to see all the kids”.

Children recognized that parents placed importance on the communication that occurs at family meals “because my parents are always asking us if there is anything going on, so I think it is important. They want to know about our day and what happened, did you get bullied or anything” and “they give suggestions on what to do next time to make a situation better at school”. Kids also realized that parents placed importance on family meals because of its benefits to the family as a whole. One child stated, “they always take care of us and they want us to be healthy and strong so that later on we can work”. One child said, “I think they feel like they have the power to make it

(family meal) every day for us, so that is why it is important to them”.

Children living in single parent households believed family meals were particularly important to the parent who did not get to see them every day (“because she (mother) doesn’t see me on the weekends, so we try and have mealtimes during the week when I am with her”). Similarly, children with parents working long hours commented, “My dad is always at work, so when we do get time to eat together, it is important for him”.

Some children felt eating together as a family was not especially important to parents. One child indicated that parents did not need to have mealtimes with their children “No-parents spend enough time with you because they have to do everything for you, so they don’t need to spend more time with you during dinner”. Others commented, “We don’t really eat together... usually in separate rooms, but at the same time” and we “sit at different tables sometimes to help have less fights”.

Children’s perceived barriers to family meals: Kids indicated that busy schedules were the biggest barrier to family meals, remarking that “Sometimes we are rushing around and there is no time” for family meals. Kids reported that “getting all of the family members together” is difficult “because their schedules are split” with family members eating at different times (“I usually eat before my brother. My brother just grabs food whenever he gets hungry”). Kids “don’t always eat with (their) family because (they) have sports” and other “activities after school and get home at 7 or 8” or because parents are at work (“can’t stop what he is doing at work to make it on time for dinner or to come home earlier”).

Other barriers to family meals were being “distracted with TV or videogames” and family members “arguing or acting up at the table”. Some mentioned that “parents forget to have family dinners” or “are busy with other tasks like cleaning house” and “have to take siblings to tutoring, and go grocery shop[ing]”. Another commented, “Sometimes my mom feels like she is not hungry or she is just tired and wants to stay in bed”.

Children’s strategies for overcoming barriers to family meals: Some children were not sure of how to cope with obstacles to frequent family meals, however most had at least one idea. For instance, kids suggested “scheduling time to have meals together”, “having a routine”, “picking a day and have dinner together” and making a “plan-find a date when everybody is available and can be at home”. To prevent afterschool activities from interfering with dinnertime, kids thought families could “have it (family meals) earlier, like before practice or games”. Others suggested that “parents can try to get home earlier so that we can eat together”, parents can “do paperwork on computers at home and can eat with us”, and “kids can cut back on sports if we have to”. One girl said, “I like sports so much I won’t stop, but if I have to I will”. Other kids suggested having family meals on nights “when we don’t have sports” and “when my dad is not late from work”. They reported that “if it is a busy night, they (parents) say ‘go get pizza or make something quick like mac and cheese’”, “some nights it’s just grab a pizza and go eat”, or “go to a drive thru and eat something small or simple and quick”.

Children noted that their families were more likely to have family meals “when it’s a holiday or birthday”. They also found that having “the whole family together” including aunts, uncles, and grandparents and “inviting people over for dinner” increased the probability of having a family meal.

The quality of the meal also was seen as a way to overcome barriers to family meals. One child remarked, “If mom prepared really good food, then we would have family meals more often”. Another indicated it would help to have meals that were “homemade, not things out of a box-we all like that”.

Kids felt parents could improve the frequency of family meals by “planning the meal ahead of time” by “asking in the morning what you (kids/spouse) want for dinner” “or leaving the food in the crockpot”. And that, “if you buy groceries, there is more of a chance for a family meal”.

Children were aware that parents were overworked and stressed and understood these were barriers to family meals and therefore they could help their families share mealtime more often by “helping them (parents) out with dinner so they don’t have to do so much”. They believed that “children (can) make dinner when parents are resting”. Aside from helping prepare food, children thought they could “let them (parents) sit down for ‘me time’ and we (kids) can clean the house and get ready for dinner, set the table, feed the pets”, “organize papers that will help them so we can start dinner faster”, “help mom shop”, “remind mom to get things” at the grocery store or “make sure my brothers do not get in the way when my mom is making food”.

Kids also felt they could “start the conversation to eat together” by “asking parents to get together to eat dinner”, and “ask if one night my sister (who usually eats in her room) could come out and eat with us”. One child remarked, “When I have something really important to discuss or I really want to share news with my family, I usually tell my parents to call my brother so he can come over and we can talk about it at the table”.

Making meals enjoyable by minimizing distractions (“try not to have electronics around you”) and conflict (“don’t get mad and fight with siblings”, “don’t aggravate your mom”) were other ways kids identified for improving the frequency of family meals. They understood the benefit of enjoyable mealtime conversation and mentioned trying to “stop the arguing by changing the topic” and “telling jokes to make them (family members) realize the need to have a happier conversation”. Kids recognized that it could be helpful to talk about less enjoyable topics, such as “asking the person who is stressed what is the matter and see what we can do to help”. A few children took steps to assuage upset feelings of a family member. One child shared, “sometimes my mom is frustrated with her work and then she will come down to the table frustrated. I will ask what is wrong and then she will tell me, and this helps her feel better”. Another commented, “When my parents are yelling at each other during mealtime or someone does something wrong, I usually tell them to stop fighting because it’s mealtime. Yelling is dangerous-you might choke on the food-and it’s not nice to do it at the table”.

Children noted that their parents’ behavior influenced them and suggested families should “have the parents be calm, so the kids are calm” at mealtime. Kids also perceived that making mealtime fun by “eating outside”, “pretending it is a restaurant and acting like a chef”, and “having a family game night with the whole family” would improve the chances of having frequent family meals. Children noticed that conflict over the foods being served could be a barrier to frequent meals, so they suggested that parents “take a vote to see what people want” to eat, “make my favorite food”, and “ask them [family members] what they want (to eat) and try to make it”.

Children’s perceptions of mealtime emotional ambiance: Children agreed that conflict around family meals was unenjoyable. Kids mentioned that they “don’t like to argue” at family meals and “don’t like it when my parents fight” or when “siblings are arguing or acting up at the table”. One kid said, “My sister, she is a picky eater, that makes it stressful”. Kids had mixed feelings about use of electronic devices during meals. Kids reported enjoying TV viewing during meals and mentioned “watching movies”, “sitting down and watching TV”, “movie nights”, “watching sports together... especially at restaurants” and being “on our tablet” during family meals. Kids reported that their electronic device use during meals was influenced by their parents (“eat on couch or tray table, I follow what dad does. He goes on the couch to watch the Steelers’ game”). However, they also said they prefer their family “not be on electronics” and “don’t like it when parents and siblings (are) on (their) phones” during meals. Kids also reported getting “distracted with TV or video games”.

Kids “know it is important to have conversation” during family meals and they enjoy doing so. Children mentioned using family mealtime as a time to catch up by talking about “how our day went, what we did, how we felt, did we get in trouble”, sharing good news (“if I won a sport...I would tell them about it”), getting advice from family members on “new kids to be friends with” and discussing “something that is upsetting” them with the hope of gaining support (“they could help if you were being bullied”). Other kids saw mealtimes as a time to look forward to the future by “mak[ing] plans to do things together”, “talk[ing] about what we want to do”, “talking about what is coming up during the day”, and “daydream[ing]”. Kids also enjoyed “talk[ing] about funny memories that we did”, “playing games”, and telling “jokes at the table”.

Children’s strategies for overcoming barriers to enjoyable mealtime ambiance: Remaining calm and avoiding arguments were the two main strategies suggested by children to overcome barriers to enjoyable mealtimes. Children believed that families should “try to relax” and should “calm children down before dinner”. To keep mealtimes enjoyable, kids thought families could “share the good things that happened in their day until everybody is happier”. They understood that many conflicts are the result of kids disliking the food being served, so they suggested, “having them each pick something out for dinner, like a meat or vegetables”. Children felt it was best to “not bring up conversations that can create an unpleasant situation”, and in the case of a contentious conversation arising, they recommended families “start talking about something funny or

make up a funny story so people can start laughing instead of arguing”.

One child reported, “Sometimes I do get mad, mealtimes are just overwhelming”. When conflicts arise during meals, kids suggested families try to “stay calm and try not to get angry with each other”. They recommended family members “calm down, breathe, eat, and ignore what they say”. Kids also recommend that parents “separate the people who are fighting to opposite sides of the table”.

Discussion

This study identified family mealtime cognitions, barriers, and facilitators of parents and school-age children. Recommendations gleaned from study findings, described below and summarized in **Table 1**, are intended to guide the development of interventions grounded in Social Cognitive Theory, aiming to improve the frequency and enjoyableness of family mealtimes (**Table 1**).

Table 1: Social cognitive theory recommendations for future interventions promoting improved family meal behaviors.

Construct	Recommendations for Future Interventions
Outcome Expectations	• Expand family meal outcome expectations to include weight management in childhood and adulthood
	• Expand family meal outcome expectations to include mental health benefits
	• Educate parents on the positive associations between family cohesion and improved diet quality
	• Teach parents about recommendations for dividing the responsibility in feeding children to decrease stress-related to mealtimes (i.e., parents decide which foods, where, and when to eat; kids decide how much to eat)
	• Help parents realize the effect of technology on mindful eating and portion size
	• Help parents realize the effect of parenting styles on “picky eating”
Facilitation	• Provide parents with ideas for easy meals that can be made ahead or prepared quickly when time is a barrier
	• Provide parents with ideas for keeping meals pleasant but distraction-free
	• Encourage parents to engage children in meal preparation
	• Support parents in adjusting work schedules to let them be home in time for dinner
	• Provide parents with tips for shopping for and planning meals on a budget
Facilitation/ Observational learning	• Share “kid-approved” ideas for enjoyable meal time conversations and activities
	• Share healthy kid-friendly recipes that the whole family will enjoy
	• Share family-friendly strategies for reducing food waste (e.g. using leftovers, composting)
Facilitation/ Observational learning/ Self-regulation	• Share “parent-tested” strategies for increasing the frequency of family meals and scheduling them around other activities
Self-efficacy	• Help parents build cooking skills
	• Help parents gain confidence in their ability to encourage children to try new foods using recommended child feeding practices
Self-efficacy/	• Help parents build meal planning skills (e.g., step-by-step videos, simple recipes)
Self-regulation	• Help families build skills in making healthy choices when eating away from home

Focus group data indicate that family mealtimes were considered important by both parents and children because it affords time for the family to be together, bond, communicate, share common goals and values, and convey expectations. Despite the many health benefits associated with family meals, this concept was seldom mentioned by participants. As postulated by the Social Cognitive Theory, improving outcome expectations could increase the likelihood a behavior will be performed [22-24]. Hence, future nutrition education programs could build parent and child outcome expectations by incorporating research linking family mealtime frequency with physical as well as mental health benefits.

In general, children reported that making meals enjoyable would improve family meal frequency. Parents described a variety of strategies for keeping mealtimes pleasant and encouraging children to try new foods, including offering rewards or dessert. In keeping with current guidance on feeding children, interventions should emphasize the importance of other techniques to encourage positive mealtimes and encourage children to try new foods, such as allowing them to help plan and prepare the meal [31]. Although current recommendations encourage a division of responsibility in feeding children, with parents determining the specific foods and beverages offered and modeling healthy behaviors and

children deciding whether to eat, when eat to eat, and how much to eat [32], parents may perceive their roles during mealtimes to also include monitoring intake, managing children's behavior, and helping children make healthy choices [33]. Education programs could benefit this audience by emphasizing ways to keep mealtimes pleasant while also promoting feeding strategies that encourage healthy eating habits.

A calm, enjoyable mealtime atmosphere was important to both children and parents, with many recognizing the negative effect of emotional upset on mealtimes. However, parents and children were unaware of the association between mealtime environment and diet quality reported in the literature [34]. Although a few parents were concerned that negative mealtime associations may promote the development of eating disorders, none linked family mealtime atmosphere during childhood and future adult body weight [35]. Additionally most parents highlighted health benefits of family meals for children without also realizing that parents also benefit mentally and physically from regular family meals [36]. Future interventions should expand parent and child outcome expectations by educating them on the potential benefits of calm family meals on diet quality and adult weight status as well as parents' own health.

A key contributor to negative emotional ambiance at mealtimes was arguments. The limited repertoire of ideas parents and children had for avoiding or defusing arguments indicates that future interventions could help families reduce stress at mealtime by developing strategies for approaching mealtimes in a more relaxed manner, arranging mealtime schedules and physical environment to support positive feelings, and avoiding conflict at the table while also keeping conversations on pleasant topics that engage the family. The awareness of some children of how their behaviors affect mealtime ambiance along with methods they could use to facilitate calmer eating experiences (e.g., helping parents, not arguing with sibling, managing their own angry feelings) is noteworthy. Sharing these children's strategies in future interventions provides an opportunity for other children and parents to engage in vicarious observational learning—a key construct of the Social Cognitive Theory describing the adoption of practices based on mimicry of others' behaviors [22-24].

Parents also were concerned that having the television on during mealtimes would promote overeating and expressed concerns about use of other types of media during mealtime. Previous research has focused on the effects of mealtime television viewing on children's eating habits [37]. Given the variety of electronics equipment in the home, more recent work has assessed mealtime use of headphones, hand-held games, and mobile phones, and found these may be associated with decreased odds of serving green salad, fruit, vegetables, milk, and 100% juice during meals [38]. Findings suggest that expanding the understanding of how the use of all electronic media devices can negatively affect mealtime eating and mealtime atmosphere, as well as strategies for effectively managing the use of these devices at mealtime, are important components to incorporate in nutrition education interventions aiming to improve mealtime behaviors and outcomes.

Like previous studies [39,40], parents reported multiple barriers to family meals, including sports participation and lack of time. Some children also recognized these same barriers. Involvement in organized sports has been associated with greater likelihood of meeting requirements for physical activity [41], yet parents who are pressed for time may feel the need to sacrifice family meals or healthier meal choices to ensure their children can attend sports practice or games on time [40]. Nutrition education interventions for this group likely should include ideas for incorporating meal planning or healthy cooking techniques into busy schedules and balancing physical activity with family meals. For example, parents noted that eating out on busy nights helped alleviate stress while allowing them to eat with their children. Tips on choosing healthy foods and portions at restaurants could enable time-stressed families to eat together and eat more healthfully, given evidence that eating fast food at family meals does not improve nutrient intakes and may be associated with overweight [42,43]. In addition, helping parents develop family meal planning skills and time management skills could enable them to make family mealtimes a more regular part of their routine.

Focus group findings also revealed possible conflicts between parents, who felt using "boxed" or "quick" meals enabled them to have family meals more frequently, and children, who believed that having "really good food" or "homemade meals" would increase the likelihood of family meals. Ready-to-eat meals also have been associated with greater energy intake and decreased compliance with nutrient recommendations [44]. Providing families with tips on homemade meals that are fast to make and reduce dependence on pre-packaged foods may help both parents and children make family meals doable, yet still enjoyable.

In the current study, children noted the connection between enjoyable meals and family meal frequency; research with adolescents reported that other family members' perceptions of and behaviors during family meals may influence perceptions of eating together [45]. For example, children and parents both noted that conflict over the foods being served made family meals unpleasant and less likely to occur. Interestingly, children did not perceive the need to try new foods but suggested that parents should serve foods that are preferred or allow each family member to choose an element of the meal. However, parents conceded this was not always possible. In a study of low-income families, parents reported that pickiness increased mealtime stress, created unnecessary food waste, and was costly; often, they could not afford the ingredients for children's preferred foods or for making separate meals catering to the tastes of multiple family members [46]. Providing strategies to decrease food waste, shop and plan for meals on a budget, and prepare foods that are child-friendly may help families to overcome these barriers.

Research also has suggested that policy changes allowing parents to take some work home so they can leave work in time for a family dinner may reduce the time crunch parents experience and make family meals more feasible [40]. Providing parents and children with ideas on how they can work collaboratively to plan prepare, and shop for meals may ease

some of the burden that parents feel while helping children develop important life skills and improving diet quality [47]. Resources that improve self-efficacy around meal preparation, such as step-by-step videos or simple recipes, also may help parents who perceive they are poor cooks.

This study is novel in many ways. For instance, participants were families with elementary school-aged children; much of the previous family meal literature has focused on teenagers rather than this age group. Focus groups included the perspectives of both parents and children and traced changes in perceived barriers to family meals that occur as children mature. Additionally, relating the study findings to Social Cognitive Theory constructs provide a framework to guide educators when choosing areas to emphasize. Strength of this study is the richness of the data generated and reported using the quote replete method, which will allow health communicators to use the verbal expressions of the target audience to target instructional materials. A limitation is that participants in this study reported eating family meals most days, thus it is possible that their family meal perceptions may differ from families who consume family meals less frequently. Future studies should aim to recruit families who have infrequent family meals as well as a more diverse population to reveal possible unique barriers and suggest targeted strategies for overcoming them. Nonetheless, this study provides rich insights that can support the development of more effective interventions aiming to increase the frequency and quality of family mealtimes thereby enabling families to enjoy the benefits associated with regular family meals.

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Conflicts of Interest

The authors declare no conflict of interest.

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