



# Eating dinner away from home: Perspectives of middle-to high-income parents



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## ABSTRACT

This study sought to understand barriers and facilitators for preparing and eating dinner at home in families who report eating dinner away from home  $\geq 3$  times per week. Cross-sectional, mixed methods (focus groups, questionnaires) study. Twenty-seven parents with a child 3–10 years-old who reported eating dinner away from home  $\geq 3$  times per week from a pediatric medical center in the Midwest participated. The key concepts analytic framework guided focus group analysis. Descriptive statistics were used to characterize parent demographics, anthropometrics, attitudes and confidence toward cooking, perceptions of dinner costs and portions, and parent and child dinners. Parents reported confidence in cooking a home prepared meal, but that eating away from home was reinforcing because it provided quality family time and diminished barriers such as picky eating and perceived costs. Home cooking was also hindered by early school lunch and after-school sports as children were not hungry or home at the typical dinner hour and parents did not want to cook after 8pm. Parents estimated preparing and eating a meal at home took significantly more time than driving and eating out (80.7 min vs. 30.3 min,  $p < 0.001$ ). Parents significantly ( $F(3, 104) = 8.80$ ,  $p < 0.001$ ) overestimated the cost of home-prepared meals compared to take-out and frozen meals. Portion size was also overestimated for a protein serving. Findings are limited to predominantly married, female parents whom are highly educated and working. To reduce eating out, interventions should address family factors (e.g., time management, quality time) and child behavior (e.g., picky eating). Innovative interventions that include experiential cooking opportunities that incorporate time management, address picky eating and enthusiasm for cooking with education on decreasing costs may be particularly beneficial for middle-to high-income families.

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## 1. Introduction

Families are preparing less food at home and spending more money on foods prepared away from home (Begley & Gallegos, 2010; Lin & Guthrie, 2012; Patrick & Nicklas, 2005; Smith, Ng, & Popkin, 2013). No standard definition exists, but foods prepared away from home commonly refer to foods purchased at restaurant, fast food, or take-out establishments (Guthrie, Lin, & Frazao, 2002; Ries, Kline, & Weaver, 1987). Due to the high prevalence of child overweight and obesity, greater consumption of foods prepared away from home is concerning as these foods are more calorically

dense and of poorer nutritional quality; they also tend to be higher in saturated fat, sodium, and cholesterol, and lower in calcium and dietary fiber, when compared to foods prepared at home (Ayala et al., 2008; Lachat et al., 2012; Lin & Guthrie, 2012; St-Onge, Keller, & Heymsfield, 2003). While the association between consumption of meals away from home and poor diet quality is strongest in children and adolescents from lower-income households, it affects children in all economic classes (Powell & Nguyen, 2013). Foods consumed away from home may not only contribute excess caloric intake, but perpetuate comorbid chronic health conditions such as obesity (Nago, Lachat, Dossa, & Kolsteren, 2014; Powell & Nguyen, 2013).

Compounded with the increase in foods consumed away from home there is also a national decline in cooking at home (United States Department of Agriculture & Economic Research Service,

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2014). While socio-demographic shifts, including women in the workforce and time constraints are believed to be large contributors to the decrease in cooking (Cawley & Liu, 2012; Fulkerson et al., 2011; Guthrie et al., 2002; Hersch, Perdue, Ambroz, & Boucher, 2014; Jabs & Devine, 2006; Nelson, Corbin, & Nickols-Richardson, 2013), the lack of cooking skills and confidence have also been identified as contributors to decreased cooking (Condrasky, Graham, & Kamp, 2006; Hersch et al., 2014) and barriers to healthful eating (Nicklas et al., 2013). In addition, reliable transportation, functional appliances and food preparation supplies have been identified as barriers to cooking for families of lower-income (Appelhans, Waring, Schneider, & Pagoto, 2014; Bowen, Elliot, & Brenton, 2014). Studies have shown parents desire tasteful, easy, convenient meals that are low in cost and culturally appropriate (Fulkerson et al., 2011; Glanz, Basil, Maibach, Goldberg, & Snyder, 1998; Goh et al., 2009; Sealy, 2010) and some families may believe that food eaten out is tastier (Glanz et al., 1998) and lower in cost (Fulkerson et al., 2011; Glanz et al., 1998). These beliefs may encourage parents to eat out and thus perpetuate the cycle of decreased home prepared meals. As a result, children may have less opportunity to learn culinary skills they will need in the future (Lichtenstein & Ludwig, 2010) which may only reinforce the behavior of eating away from home.

Despite these health risks and national recommendations (U.S. Department of Health and Human Services) to eat at home more, eating foods away from home is on the rise (United States Department of Agriculture & Economic Research Service, 2014). Understanding the perceptions that drive eating out from key stakeholders, that is families who report eating dinner away from home frequently, is a critical first step to informing the design of interventions to reduce eating out. Frequent eating out has been defined as eating out  $\geq 3$  times per week in the adolescent literature (French, Story, Neumark-Sztainer, Fulkerson, & Hannan, 2001; Powell & Nguyen, 2013). The purpose of this investigation was to better understand barriers and facilitators, and reasons why families eat out or eat convenience foods (e.g., pre-prepared frozen food), in a sample of middle-to high-income families with children ages three to ten years old who eat out  $\geq 3$  times a week. Since the goal was to identify the factors of central importance to eating away from home, qualitative methods (focus groups) were utilized. No a priori theoretical framework was chosen rather focus group data were analyzed for key concepts using the methods described by Krueger (Krueger & Case, 2009). Quantitative data on parent demographics, anthropometrics, attitudes and confidence toward cooking, perceptions of dinner costs and portions, and parent and child dinners was also collected to characterize the study sample.

## 2. Methods

### 2.1. Study design

This mixed methods, cross-sectional study combining qualitative and quantitative data and analyses was designed to obtain parent perspectives' on barriers to eating at dinner at home and facilitators to eating dinner away from home. Qualitative data were collected through focus groups. Consistent with the key concepts analytic approach, focus groups were coded for themes independently and final themes were selected by consensus ratings (Krueger & Case, 2009). Quantitative data were collected from parent completion of questionnaires and height and weight measurements.

### 2.2. Participants

Parents of children ages 3 to 10 years-old were recruited

through a study flyer sent to employee e-mail addresses (approximately 15,000) at a large pediatric medical center in the Midwest. Interested parents were screened for eligibility over the phone. Participants were excluded if the parents reported: being <18 years of age; not the primary caretaker and primarily responsible for feeding the child; ate out or ate pre-prepared frozen foods for dinner <3 times per week; did not speak or read English; did not have transportation; did not have a working telephone number; or the parent was unable to attend one of the pre-scheduled focus groups. Only one parent per household was eligible to participate. Following screening, interested and eligible participants were scheduled to attend one of four focus groups. Of the 72 individuals who responded to the study flier, 51 individuals were screened, 48 met eligibility criteria and 3 individuals were ineligible (2 unable to make focus group times, one ate dinner out <3 times per week). An additional four participants were placed on a wait list due to focus groups being full. Of the 48 eligible participants scheduled for a focus group 21 did not attend resulting in a total of 27 participants. All study participants identified themselves as parents. Informed consent was obtained at the focus group session prior to any data collection. The study was approved by the Institutional Review Board.

### 2.3. Procedures

Focus group questions were developed a priori, based on study aims and refined by experts in nutrition, psychology and the conduct of focus groups. Focus groups were held on a weekday evening and lasted 60–90 min. A doctoral level registered dietitian with training in focus groups and two trained assistant moderators conducted each session using a structured guide with probes to elicit responses if needed based on recommendations from Krueger (Krueger & Case, 2009). Focus groups were audiotaped and transcribed verbatim, utilizing field notes from the assistant moderators to identify comments specific to the moderator or participants. Participants received a \$40 gift card in compensation for their time.

### 2.4. Measures

#### 2.4.1. Demographics

Parents completed a questionnaire regarding family demographics, including: race, ethnicity, marital status, highest level of education attained by parents, household income, and number of children in the household.

#### 2.4.2. Anthropometrics

The height and weight of each parent was measured without shoes and outerwear by a trained research assistant using standard procedures (Lohman, Roche, & Martorell, 1988). Anthropometric measurements were taken in private after the focus group.

#### 2.4.3. Caretaker attitudes and confidence

Parents rated ease of providing foods prepared away from home (i.e., pre-prepared frozen, restaurant food, fast food, take-out) for an evening meal, ease of providing a home prepared evening meal, and their confidence with home meal preparation using a 100-mm visual analog scale (VAS). Parents also rated their ability, enjoyment of cooking and desire to cook on a 100-mm VAS. Scoring was conducted so that higher values represented greater ability, enjoyment, desire, ease and confidence.

#### 2.4.4. Parent perception of dinner costs

Parents were provided with four visual images one each for a homemade meal, frozen (convenience) meal, fast food meal, and take out meal. Each meal image depicted one adult and two child

evening meals. The homemade meal image had baked chicken, a baked potato with sour cream, and green beans. The frozen meal image had a Banquet® meal and two Kids Cuisine® meals. The fast food meal image had one McDonald's® Big Mac meal, and two McDonald's® chicken McNuggets Happy Meals. The take-out meal image had two slices of Papa John's® cheese pizza for the adult meal and one each for the child meals. Parents recorded their estimate of the total cost of each meal as a whole depicted in the photograph. The parent cost estimate was subtracted from the actual cost of the meal to yield meal cost accuracy score.

#### 2.4.5. Parent perception of portion sizes

Parents were provided with 8 visual images of a protein (baked chicken) and vegetable (kernel corn) in different portion amounts and asked to identify which image best represents a child-sized portion and an adult-sized portion. Parents could choose from pictures that represented a 28.35 g, 56.70 g, 85.05 g, 113.40 g, 141.75 g, 170.10 g, 226.80 g, or 340.19 g portion of chicken and a 4.92 mL, 14.79 mL, 0.06 L, 0.08 L, 0.12 L, 0.16 L, 0.18 L or 0.24 L portion of kernel corn. The parent portion size estimate was subtracted from the standard portion size for protein and vegetables for a meal to yield portion size accuracy score for an adult and child serving.

#### 2.4.6. Dinner information

Parents were provided with a booklet containing questions about parent and child dinner choices, how much time parents estimated it took to get or prepare different meal choices, location of eating dinner if prepared away from home, and reasons for purchasing foods prepared away from home. Frequency of eating foods prepared away from home in an average week was also quantitatively assessed. Parents were directed to complete specific questions in the booklet at specific times during the focus groups.

### 2.5. Analysis

All analyses were conducted using the Statistical Analysis System (SAS version 9.3; SAS Institute Inc.). Means and frequencies were used to analyze continuous and categorical data, respectively for demographics, anthropometrics, and caretaker attitudes and confidence ratings. Cost differences (estimated cost minus actual cost) were further analyzed with a one-way analysis of variance and if significant, followed-up with the Bonferroni multiple comparisons procedure. Paired t-tests were used to analyze portion differences (estimated portion size minus recommended portion size) for child and adult servings. An alpha level of <0.05 was considered statistically significant.

Focus group data were analyzed separately using consensus ratings among three coders (two primary coders, one reliability coder) (Krueger & Case, 2009). Transcripts of the focus group were generated by individuals not involved in the focus groups then distributed to coders. Each coder independently coded responses for each focus group into one of three major categories: major themes, minor themes or other topics that are either off topic or relevant to another question. Using the key concepts analytic framework as a guide, group meetings with all coders used the major themes across focus groups to derive the final themes. Any disagreement about themes was resolved by consensus.

### 3. Results

Twenty-seven parents ( $37.6 \pm 6.5$  years, 63.0% white, 85.2% female, BMI  $33.5 \pm 9.1$  kg/m<sup>2</sup>) with a child between the ages of three and ten years-old participated in one of four focus groups (see Table 1 for full demographic information). This represented 37.5% of the individuals who responded to the flier and 56.3% of the

individuals who met screening criteria and were scheduled for a focus group. The majority (88.9%) of parents reported there was an additional caretaker for their child in the home, 70.8% identified their husband, 8.3% their wife, 12.5% their partner, and 8.3% as other. By parent report, the secondary child caretakers were highly educated (66.7% had a college or graduate/professional degree) and worked full time ( $42.4 \pm 7.2$  h per week).

#### 3.1. Caretaker attitude and confidence

As shown in Table 2, parents reported being confident in cooking a home prepared meal including preparation of vegetables, meats, grains, and convenience foods. Parents reported that providing their family with foods prepared away from home was easier than preparing a home prepared meal, and cooking fried or healthy foods. Only moderate levels of enjoyment of cooking and desire for cooking were reported.

#### 3.2. Parent estimated dinner costs and portions

As demonstrated in Table 3 parent cost estimates for home prepared dinner ( $\$5.87 \pm \$4.46$ ) were significantly ( $F(3, 104) = 8.80, p < 0.001$ ) overestimated compared to cost estimates for take-out ( $\$2.38 \pm \$3.29$ ) and frozen meals ( $\$0.97 \pm \$3.15$ ). While the cost of fast food ( $\$3.76 \pm \$3.55$ ) was underestimated compared to home meals this difference was not statistically significant. On average parents over-estimated the portion size of protein based on a conventional portion of three ounces for protein by  $42.52g \pm 51.03g$  for a child portion and  $164.42g \pm 76.54g$  for an adult portion. Parents more accurately identified the portion size of a vegetable based on a conventional 0.12L portion

**Table 1**  
Parent demographic and anthropometric characteristics.

	M (SD) or n (%)
Age, yrs	37.6 (6.5)
Sex, female	23 (85.2)
Race	
American Indian/Alaskan Native	1 (3.7)
Asian	1 (3.7)
Black or African American	8 (29.6)
White	17 (63.0)
Ethnicity	
Hispanic or Latino	2 (7.4)
Marital status	
Married	19 (70.4)
Divorced	3 (11.1)
Never married	2 (7.4)
Not married (living with significant other)	3 (11.1)
Education	
Some college (less than 4 years)	4 (14.8)
College degree	12 (44.4)
Graduate/professional education	11 (40.7)
Employment	
Full-time	20 (74.1)
Part-time	4 (14.8)
Retired or not employed	3 (11.1)
Hours worked per week	39.4 (8.4)
Income (n = 26)	
Under \$40,000	2 (7.7)
\$40,000–99,999	10 (38.5)
\$100,000 and above	14 (53.6)
Additional adult child caregiver	24 (88.9)
Household size	3.8 (0.8)
BMI, kg/m <sup>2</sup>	33.5 (9.1)
Weight Status	
Normal (BMI $\geq 18.5$ kg/m <sup>2</sup> , but < 25 kg/m <sup>2</sup> )	5 (18.5)
Overweight (BMI $\geq 25$ kg/m <sup>2</sup> , but < 30 kg/m <sup>2</sup> )	17 (63.0)
Obese (BMI $\geq 30$ kg/m <sup>2</sup> )	5 (18.5)

(child:  $-0.05 \text{ L} \pm 0.02 \text{ L}$ ; parent:  $0.02 \text{ L} \pm 0.05 \text{ L}$ ).

### 3.3. Dinner information

Parents reported their child ate out and/or convenience food  $3.9 \pm 0.9$  nights per week. They estimated it would take significantly ( $p < 0.001$ ) more time ( $80.7 \text{ min} \pm 53.0$ ) for meal preparation and clean up (excluding eating), than they estimated for the time it would take to drive (to and from) and order food away from home ( $30.3 \text{ min} \pm 11.8$ ). When eating away from home parents indicated that 70.3% of the time they would eat at the place the food was ordered. Convenience (96.3%), cost (48.2%), and child asking for it (48.2%) were most commonly selected reasons parents reported purchasing foods prepared away from home.

### 3.4. Focus group themes

Several major themes emerged as reasons for eating out. Specifically, time conflicts, cost, and themes related to parent expectations around mealtimes.

### 3.5. Time conflicts

Across focus groups parents commented that children are not hungry or home at the dinner hour, due to early school lunches (11 am) or extracurricular activities, respectively. Parents described the early school lunch time as one antecedent to eating out. One parent articulated this domino effect as "... our son gets off the school bus and he's like, daddy I'm hungry. Okay, let's jump in the car and just go grab a sandwich, because he's just not into cooking at all. So then by the time I get home everybody's eaten, but then they're hungry again at 8 or 9 o'clock after they've done everything so then its ... my 17 year-old is like, oh I'll run to McDonalds." Extracurricular activities also influence home prepared meals as one parent noted, "You have to go to soccer practice, gymnastics and then, yeah, by the time you get home at 8 o'clock, forget it."

### 3.6. Perceived cost

Another major theme was parent beliefs that eating out was more cost effective than cooking at home. Parents across all four groups shared that many casual dining restaurants offered a "kids eat free" or a half-price night once a week, "... I can take 'em to Skyline and I eat for seven bucks. That's just a three-way and they eat free." Parents noted the high costs of ingredients for home prepared meals as a reason home prepared meals were not as cost effective as eating away from home. As one parent reported, "One of

the things that bother me cause I do like to cook a lot of stuff is like sometimes it's a matter of the ingredients are, I don't want to say rare, but not common for what you would normally use and then that one ingredient might be like \$10 and you only use that for this thing and then you know it's going to be dried out or disgusting if you want to make that thing again ...".

### 3.7. Parent expectations around mealtimes

#### 3.7.1. Picky eating

Parents reported they like eating away from home because everyone in the family could get what they wanted to eat and thus avoided issues of food rejection. No one complained about what was being served or rejected food because of picky eating, a common phenomenon reported by parents: "Her picky eating is probably one of, one of the biggest barriers that discourage me from putting any time, effort and money to try to make a meal when she won't eat."

#### 3.7.2. Wasting food

Parents reported strong feelings about wasting food and that this occurred a lot with home cooking. "I hate wasting food" was repeated by several parents. Wasting food occurred when ingredients that were purchased for a recipe or meal go bad before they can be used. Wasting of food was also reported to commonly occur when plans to eat at home were unexpectedly changed and appeared to perpetuate eating away from home. "... and so, I've been on top of things and planned the meals for the week and I've gotten what I've needed, and I've, and then something happens that week. Where you know, things come up and I didn't get to cook and so I had to wait and then by the time I got to it the um stuff was spoiled, and so the next time I go grocery shopping, I don't buy as much, and then we eat out more ...".

#### 3.7.3. Lack of appreciation

Lack of appreciation by family members of home prepared meals was a major theme as to why parents preferred to eat out. "... my kids don't appreciate any of the time or energy that's put into a meal. And so it frustrates me that I've spent time making stuff when there's just going to ask if they can have a TV dinner anyway." They contrasted cooking for a family with the experience of cooking for "company." The same parent who stated her family did not appreciate her cooking shared "... but company they usually come over and they're like oh this is so good. And they praise your cooking and then you're all excited and you want to invite them over more so that you can cook for them." Parents who did not enjoy cooking meals reported enjoying baking, again because they felt their baking efforts, as opposed to their meal cooking efforts, were appreciated. This contrast is exemplified in the statement of one parent, "I love to bake ... I like baking cookies, brownies, bars ... people appreciate that stuff."

#### 3.7.4. Quality family time

Another major theme that influenced parents' decision to eat away from home was the parents' desire to spend quality time with their family. Parents defined quality time as time spent talking or catching-up with their children. Parents felt that cooking at home was isolating because they were in the kitchen and family members may be in other parts of the house. They also described that the demands of cooking and putting food on the table interfered with their ability to interact with family members. In their opinion, eating away from home, especially at casual dining restaurants, removed these barriers so that they could just sit and talk with their children and spouse. Parent comments included: "And for us, just getting home that late, it's easier to go out and sit down and catch

**Table 2**

Mean ratings of parent attitudes and confidence toward cooking using a 100-mm visual analog scale.

	Rating <sup>a</sup> (M $\pm$ SD)
Confidence in preparing convenience foods	90.8 $\pm$ 12.8
Ease of providing food prepared away from home	87.5 $\pm$ 13.5
Confidence in preparing vegetables	84.1 $\pm$ 16.0
Confidence in preparing grains	81.5 $\pm$ 23.0
Confidence in preparing a home prepared meal	74.4 $\pm$ 20.2
Confidence in preparing meat	74.2 $\pm$ 20.6
Ability to cook dinner	61.7 $\pm$ 21.9
Ease of providing a home prepared meal	56.9 $\pm$ 24.0
Ease of cooking healthy foods	56.2 $\pm$ 22.5
Enjoyment of cooking	52.7 $\pm$ 32.2
Desire to cook	49.4 $\pm$ 28.5
Ease of cooking fried foods	37.4 $\pm$ 27.1

<sup>a</sup> Higher ratings represent higher ability, ease, enjoyment, desire, or confidence.



**Table 3**

Parent estimation of food costs and portions sizes compared to actual food costs and portion sizes.

	Estimated M (SD)	Actual <sup>a</sup>	Difference <sup>b</sup> (estimated-actual) M (SD)
<b>Costs, USD</b>			
Homemade	\$9.55 (\$4.46)	\$3.68	\$5.87 (\$4.46) <sup>A</sup>
Fast food	\$12.86 (\$3.56)	\$9.10	\$3.76 (\$3.56) <sup>A,B</sup>
Take-out	\$8.63 (\$3.30)	\$6.25	\$2.38 (\$3.30) <sup>B,C</sup>
Frozen meals	\$7.35 (\$3.16)	\$6.38	\$0.97 (\$3.16) <sup>D</sup>
<b>Portions</b>			
<i>Chicken, grams</i>			
Child	127.01 (49.90)	85.05	41.96 (49.90) <sup>A</sup>
Parent	249.76 (77.11)	85.05	164.71 (77.11) <sup>B</sup>
<i>Corn, liters</i>			
Child	0.08 (0.03)	0.12	−0.04 (0.03) <sup>A</sup>
Parent	0.14(0.04)	0.12	0.02 (0.04) <sup>B</sup>

Abbreviations: M, mean; SD, standard deviation; USD, US dollars.

<sup>a</sup> Actual costs are based on purchase price in November 2013 in Cincinnati, OH and actual portions are based on standard portion sizes (U.S. Department of Health and Human Services, 2010).<sup>b</sup> Difference means with the same letter are not significantly different from each other.

up and not have to worry about making the dinner, trying to get quality time, and then cleaning it up afterwards" and "You can actually sit next to them and talk to 'em. And not have to be like, oh, I'll, you know, go fix this or you know, here's your food eat it and talk to me ...".

### 3.7.5. Rewarding feelings

Positive feelings associated with eating away from home were also a consistent theme reported by parents. Parents described eating away from home as "... just relaxing you don't have to think about the rest ..." or as a "... a reward."

## 4. Discussion

This was the first study to examine reasons for eating dinner away from home in middle-to high-income families of children ages three through ten years-old who self-identified as eating out or eating convenience foods for dinner  $\geq 3$  times per week. Similar to previous studies on family meals, time and convenience were found to be predominant reasons reported by parents. However, unlike previous studies (Condrasky et al., 2006; Hersch et al., 2014) confidence in cooking home prepared meals did not arise as a barrier, qualitatively or on a caretaker attitude and confidence measure of cooking. Similarly, social influence and health issues, identified as themes by women of lower-income with young children as barriers to healthy eating did not emerge in this sample (Hampson, Martin, Jorgensen, & Barker, 2009). Interesting findings about the barriers to eating meals at home and the facilitators to families eating out did emerge. Due to the predominantly higher-income, dual-headed household sample, the unique opportunity for comparisons to findings from lower-income households are made throughout the discussion when relevant.

While previous research has implicated the greater numbers of women in the workforce as a societal change related to decreased cooking at home, (Cawley & Liu, 2012; Fulkerson et al., 2011; Guthrie et al., 2002; Hersch et al., 2014; Jabs & Devine, 2006; Nelson et al., 2013) parents in our study focused on children's schedules related to early school lunch times and extracurricular activities as time conflicts impacting dinner at home. Parents reported, lunch times for young children before the noon hour (typically 11:00 am) lead to children needing to eat immediately upon arriving home which delays hunger until after the typical dinner hour (approximately 6:30pm (Larson, 2003)) or children are at sports practice and not present during the dinner hour, again delaying dinner until later. This interaction of children not being hungry or present at the typical dinner hour delays dinner to a later

time (8:00 or 9:00 pm) at which time parents do not want to cook resulting in eating out or eating convenience foods. Competing priorities with preparing a meal at home, such a child involvement in sports may require a trade-off within the family's time constraints. The specific time constraint (e.g. parent work, child extracurricular activities) and trade-off may vary between populations, for example working women in single-headed households may need to allocate more time toward working, thus reducing the time available for preparing meals (Mancino & Newman, 2007). This trade-off may also be further negatively reinforced by feelings of under appreciation even when meals are prepared at home. Gathering data about what aspects about cooking provide positive reinforcement within socioeconomically similar parents who do cook at home may provide specific strategies to employ in an intervention.

Prior research (Fulkerson et al., 2011) found that parents enjoyed family meals in the home environment due to mealtime conversations and feelings of connectedness with children; however, uniquely captured in this study, parents indicated that eating dinner out allowed them to have quality family time in the evening. They perceived cooking dinner and cleaning up afterwards as competing with quality family time. Cooking the family meal left parents feeling isolated, while eating out facilitated quality family time, as someone else was responsible for food preparation.

Related to enjoyment of the dinner meal with the family, parents reported it was also more enjoyable to eat out because each family member could order what they wanted and no one rejected their food because it was disliked. Picky eating has also been cited as a barrier to family meals, across income status, and is clearly a factor that would need to be addressed in order to change eating out patterns (Bowen et al., 2014; Fulkerson et al., 2011).

Picky eating also impacted parent perception of the financial cost to cooking at home. Specifically, parents perceived cooking at home was more expensive when food was wasted, due to picky eating or family members not wanting what was cooked. They also felt cooking at home was more expensive because of the cost of specialized ingredients and waste if they did not use ingredients before they went bad. Fruits and vegetables were mentioned in relationship to both food waste costs from food going bad and picky eating. These factors in combination with restaurant and fast food offerings like "kids eat free" made eating out seem more cost effective for parents than cooking at home. Similarly, low-income households note the cost of ingredients, specifically fresh produce which spoils quickly as barriers to preparing meals at home (Bowen et al., 2014; Hampson et al., 2009). Greater financial stress has been associated with increased home-prepared dinner consumption

(Appelhans et al., 2014) and, families of low-income report that eating at home is a way to save money (Bowen et al., 2014). However, consideration of the cost related to cooking at home may encompass more than financial costs thus further exploration of cost perceptions is warranted in future studies.

General health guidelines and obesity prevention and treatment recommendations in particular often suggest limiting eating out to achieve a healthy diet (Barlow & The Expert Committee, 2007). The current study highlights that simply recommending cooking and eating at home will likely not be sufficient to change this behavioral pattern. Findings from our focus groups would indicate that to change this pattern, cooking interventions need to be grounded in behavioral theory so that techniques can be employed that address the broader family issues around meal times including time management, parent enthusiasm for cooking, and picky eating.

A cooking intervention is unique in that it can incorporate an experiential learning opportunity to prepare foods (Nelson et al., 2013), and use this applicable experience to teach key behavioral techniques to manage related barriers such as time management. Kolb's learning cycle (Kolb, 1984) suggest cooking has the opportunity to move participants from observational learning to experiential learning, providing the knowledge and technical proficiencies to implement healthier eating behaviors. Further, cooking can involve both parents and children, which may reduce the trade-off of quality time spent with the family versus cooking. While traditional cooking programs have focused on improving cooking knowledge and skills this format can be implemented within a behavioral-based intervention and could be expanded to include change in child eating behavior (e.g. picky eating), parent and child energy intake and/or weight (Hersch et al., 2014; Nelson et al., 2013). As in the child obesity literature (Whitlock, O'Connor, Williams, Beil, & Lutz, 2010), parent behavioral skills such as praising and describing to encourage positive behavior could uniquely be incorporated into a cooking intervention to help parents cook with their child and successfully introduce new foods. An additional benefit of involving children in cooking can be an increase in child preferences (O'Connell, Henderson, Luedicke, & Schwartz, 2012; Wardle, Herrera, Cooke, & Gibson, 2003) and consumption (Caraher, Seeley, Wu, & Lloyd, 2013) of foods through greater exposure to a variety of foods especially fruits and vegetables and may impact children's future skills and confidence in cooking. In addition to behavioral skills, nutrition education focused on teaching ingredient substitutions may address perceptions of meal preparation cost and food waste. The nutrition component could also teach families how to make healthier choices when they do have to eat away from home. This may become even more feasible as eating establishments are being required to post caloric content of foods and more healthy menu options become more available.

While findings of the present study can inform approaches to intervention to increase home cooking, several limitations of the current study should be recognized. First, findings should be interpreted within the context of the methodological limitations of qualitative and cross-sectional data. Second, participants were recruited from a convenient sample population associated with a pediatric medical center in the Midwest. This sample was predominantly white women from a higher socioeconomic status whom were married and employed full time, which limits the generalizability to other populations, specifically single-head of and low-income households. Low-income populations, in particular families participating in the Supplemental Nutrition Assistance Program report greater time and income constraints (Mancino & Guthrie, 2014). Single working women report spending less time than married or partnered working women preparing food (Mancino & Newman, 2007). Thus, focus groups are needed with

these groups and other diverse populations to confirm or oppose themes found in this study. Lastly, research would also be advanced with the inclusion of comparison groups including affluent parents who report eating at home more often to understand their perceptions of cooking dinner at home, as well as extending research by studying families of low-income who eat away from home to assess whether barriers to cooking at home are different for low-income compared to more affluent homes. It is possible that the current sample included more households experiencing picky eating or under-appreciation of home cooked meals.

## 5. Conclusion

Middle to high-income parents of families who eat out and/or eat convenience food frequently reported time conflicts, costs, and factors related to parental expectations around mealtimes as reasons for eating dinner away from home. Stakeholder feedback provides essential input for intervention development, and therefore a behavioral-based intervention that utilizes the natural elements of cooking may provide the opportunity to effectively address parents' reasons for eating away from home.

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## Conflicts of interest

SMR, LEC, and LJS have no competing financial or non-financial relationships to disclose.

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