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Comparing Childhood Meal Frequency to Current Meal Frequency, Routines and Expectations Among Parents

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Abstract

Little is known about the continuation of family meals from childhood to parenthood. This study aims to examine associations between parents' report of eating family meals while growing up and their current family meal frequency, routines, and expectations. Baseline data were used from the Healthy Home Offerings via the Mealtime Environment (HOME) Plus study, a randomized controlled trial with a program to promote healthful behaviors and family meals at home. Participants (160 parent/child dyads) completed data collection in 2011–2012 in the Minneapolis/St. Paul, MN metropolitan area. Parents were predominately female (95%) and white (77%) with a mean age of 41.3 years. General linear modeling examined relationships between parents' report of how often they ate family meals while growing up and their current family meal frequency, routines and expectations as parents, controlling for parent age, education level and race. Parental report of eating frequent family meals while growing up was positively and significantly associated with age, education and self-identification as white (all $p < 0.05$). Compared to those who ate family meals less than three times/week or four to five times/week, parents who ate six to seven family meals/week while growing up reported significantly more frequent family meals with their current family (4.0, 4.2 vs 5.3 family meals/week, $p = .001$). Eating frequent family meals while growing up was also significantly and positively associated with having current regular meal routines and meal expectations about family members eating together (both $p < .05$). Promoting family meals with children may have long-term benefits over generations.

Keywords

family meals; family routines; expectations; generations

Family meals are linked to an array of positive outcomes in children (Hammons & Fiese, 2011; Neumark-Sztainer, Larson, Fulkerson, Eisenberg, & Story, 2010; Skeer & Ballard, 2013). Research has shown that the frequency of family meals is positively associated with fruit and vegetable consumption and inversely associated with consumption of soft drinks (Christian, Evans, Hancock, Nykjaer, & Cade, 2013; Gillman, Rifas-Shiman, & Frazier, 2000; Neumark-Sztainer et al., 2010; Videon & Manning, 2003). Children who regularly eat meals with their families report better school performance (Eisenberg, Olson, & Neumark-Sztainer, 2004; Fulkerson, Neumark-Sztainer, & Story, 2006). Similarly, smoking cigarettes, alcohol use, unhealthy weight control behaviors, and depressive symptoms have been shown to be inversely associated with the frequency of family meals (Eisenberg et al., 2004; Fulkerson et al., 2006). Eating regular family meals while growing up may also promote healthful dietary intake later in life (Burgess-Champoux, Larson, Neumark-Sztainer, Hannan, & Story, 2009; Fulkerson, Larson, Horning, & Neumark-Sztainer, 2014; Larson et al., 2013) and be protective against future bulimic symptoms (Ackard & Neumark-Sztainer, 2001).

In addition to associations with positive health and behavior outcomes, family meals may also provide an important opportunity for positive communications and family connections (Fulkerson et al., 2010). In order to promote family meals, research has investigated parental perceptions of family meals and found parents enjoy the socialization with their children at meals and the feelings of family closeness (Fulkerson, Neumark-Sztainer, Hannan, & Story, 2008; Fulkerson et al., 2011). One study conducted interviews with mothers and found their memories of family meals while growing up influenced their current views that family meals are a valuable opportunity for building close relationships with their children (Malhotra et al., 2013). Regular but flexible family dinner routines can contribute to the formation of a positive family identity, feelings of unity and a child's well-being (Fiese, Foley, & Spagnola, 2006).

Given the importance of family meals to children's physical and emotional health, understanding factors that predict frequent family meals are important. Recent studies have found young adults are more likely to share meals with friends or family if they grew up eating regular family meals as children and adolescents (De Backer, 2013; Larson, Fulkerson, Story, & Neumark-Sztainer, 2013). Two studies have used qualitative methods including focus group interviews (Malhotra et al., 2013) as well as stories of childhood family meals and videotaped observations of current meals (Fiese & Marjinsky, 1999) to examine parents' family meals while growing up and their current meals as parents. The current study builds on this extant research to examine if eating family meals is a behavior that continues from childhood to parenthood. The aim of this study is to examine associations between parents' report of eating family meals while growing up and their current family meal behaviors as parents including family meal frequency, meal routines, and meal expectations.

Methods

Study Design

Data were drawn from the baseline measurement of the Healthy Home Offerings via the Mealtime Environment (HOME) Plus study. HOME Plus is a randomized controlled trial with a program designed to prevent childhood obesity by encouraging healthful behaviors and family meals at home. The main meal-preparing parent and one 8–12 year-old child per household were recruited to participate. For the present study, baseline data were used from a parent psychosocial survey completed by 160 parents in their homes during the summers of 2011 and 2012 (two cohorts) (Fulkerson et al., 2014). All adults and children provided written consent and assent. This study was approved by the University of Minnesota's Institutional Review Board.

Measures

The parent survey included questions about family meal frequency, routines and expectations as well as demographic characteristics. The questions for the parent survey were pilot tested for overall-comprehension and internal consistency and reliability.

Frequency of family meals while growing up—Frequency of family meals while growing up was assessed with one question: “How often did you eat family meals when you were growing up?” Responses ranged from “Never,” “1 time per week,” “2–3 times per week,” “4–5 time per week,” or “6–7 time per week” (Ackard & Neumark-Sztainer, 2001). Due to low responses for the first two categories, for analysis, response options were collapsed into “0–3 times per week,” “4–5 times per week,” or “6–7 times per week.”

Frequency of current family dinner—Current family meal frequency was assessed with one question: “During the past 7 days, how many times were you sitting and eating with your child when he/she ate his/her dinner?” Response options were zero through seven days. The question was adapted from the maternal presence during meals construct that was created based on cognitive interviews with parents of young children (Powers, 2005).

Family meal routines—Family meal routines were measured with a six-item scale adapted from the Family Rituals Questionnaire (original scale psychometrics; $r = 0.88$ and $\alpha = 0.90$) (Fiese & Kline, 1993). The scale used in the present study was created by deleting two items and changing existing items from a two statement format to a single question with response options “Not True,” “Sort of True,” and “True.” The family meal routines scale used in the present analysis included the following items: “In my family...a) everyone has a specific role and job to do at dinner time; b) dinner time is flexible, people eat when they can; c) everyone is expected to be home for dinner; d) people feel strongly about eating dinner together; e) dinner time is just for getting food; and f) there is little planning around dinner time” with items b, e, and f reverse coded. Higher scores on this scale represent a more regular and predictable family meal routine (current sample; $\alpha = 0.71$).

Family meal expectations—Family meal expectations were measured with an eight-item scale that included items adapted from Project EAT (Eating Among Teens) (Hogen,

1988; Neumark-Sztainer et al., 2010). The scale used in the present study ($\alpha = 0.81$) included the following items: “In my family...a) it is important that the family eats at least one meal a day together; b) we prepare special foods for holidays and special occasions; c) we have a routine about where each family member sits at dinner; d) we often seem to eat dinner in shifts, where we do not eat at the same time; e) eating brings people together in an enjoyable way; f) mealtime is a time for talking with each other; g) dinner time is about more than just getting food, we all talk with each other; and h) we have good conversations during dinner.” Response options for each item were on a four-point scale ranging from “Strongly Agree” to “Strongly Disagree” with all items, except d, reverse coded. Higher scores on this scale represent greater expectations for shared family meals and conversations during dinner.

Demographics—Parents self-reported demographic characteristics including age, education, economic assistance and race. Age was calculated based on parent date of birth and the date of data collection. For analysis purposes, age was grouped into younger (24–40 years) versus older (41–65 years) based on median split. Education was defined as (less than high school; high school graduate or GED; completed some college credit but no degree; Associate’s degree; bachelor’s degree; or Master’s, Professional, or Doctoral Degree). Response options were collapsed into less than bachelor’s degree versus bachelor or graduate degree. Parents were classified as receiving economic assistance if they answered YES to either the question: “Does your child receive free or reduced priced lunches at school?” or “Does your household receive public assistance (like food stamps, EBT, WIC, TANF or SSI)?” Parents were classified as white or nonwhite based on their answer to the question “Which of the following best describes you?” (American Indian or Alaskan Native; Asian; Black or African American; Native Hawaiian or Pacific Islander; white) (Office of Management and Budget, 1997). Response options were collapsed into white or non-white.

Sample

Parent participants had a mean age of 41.3 years ($SD = 7.7$) and were primarily mothers (95%). As shown in Table 1, over half of participants (59%) had a bachelor’s degree or higher, just over one-third (39%) reported that their family receives economic assistance, and the majority of participants were white (77%).

Statistical Analyses

Chi-square tests were used to examine relationships between parents’ report of how often they ate family meals while growing up and demographic variables. In addition, general linear modeling examined relationships between parents’ report of how often they ate family meals while growing up and their current family meal frequency as parents, family meal routine scale scores and family meal expectation scale scores, controlling for demographic variables that were significant in bivariate analyses (parent age, education, and race). All analyses were performed using SAS, version 9.3 (Cary, NC).

Results

Twenty-four percent of parents reported eating family meals three or fewer times per week when they were growing up, 25% reported four or five family meals, and 51% reported eating six or more family meals per week. Distributions of current family dinner frequencies were similar; 29% of parents reported sitting and eating with their children three or fewer days per week, 29% four or five days per week and 42% report currently eating family meals six or more days per week. As shown in Table 1, parents who were older reported significantly more frequent family meals while growing up compared to those who were younger. Parents with a college education reported significantly more frequent family meals while growing up than those with less education. White parents reported significantly more frequent family meals while growing up compared to non-white parents.

Linear modeling, controlling for covariates, showed that parents who reported eating six or more family meals per week while growing up reported significantly more frequent family meals with their current families (about one additional meal per week) than parents who reported eating fewer family meals per week while growing up (Table 2). Compared to parents who reported eating three or fewer family meals per week while growing up, parents who reported eating six or more family meals each week had significantly higher family dinner routine scores and significantly higher family meal expectation scores as parents with their current families (Table 2).

Discussion

The goal of the present study was to examine associations between parents' reports of eating family meals while growing up and their current family meal behaviors as parents, including family meal frequency, routines, and expectations. The study findings suggest a continuation of family meals from childhood to parenthood where parents who ate more frequent family meals when they were young have family meals more often with their own children. This finding is important as frequent family meals have been linked to better nutritional intake (Christian et al., 2013; Gillman et al., 2000; Hammons & Fiese, 2011; Neumark-Sztainer et al., 2010; Videon & Manning, 2003) and are associated with positive family interactions (Fulkerson et al., 2006; Neumark-Sztainer et al., 2010) which may protect children from various high-risk behaviors (Eisenberg et al., 2004; Fulkerson et al., 2006; Skeer & Ballard, 2013). Given the substantial research literature demonstrating positive associations between family meal frequency and desirable health-related outcomes, our findings of one additional current family meal per week for parents who ate very frequent family meals while growing up may be important for child health and well-being. However, in light of the retrospective nature of our data on family meals while growing up, this finding should be viewed cautiously. Future research, which follows individuals from childhood to adulthood, and assesses family meals at different time points, would provide more valid data in this regard and is recommended.

The continuation of family meals from childhood to parenthood in our sample is consistent with recent research that found children and adolescents who ate more frequent family meals also reported more shared meals with friends and family during young adulthood (De

Backer, 2013; Larson et al., 2013). Our present research findings take these studies one step further, assessing whether frequency of family meals while growing up is associated with the frequency of family meals as parents with one's own children.

Our findings also show positive associations between the frequency of family meals while growing up and current family dinner routines and meal expectations. Regular family dinner routines such as having set places for family members to sit at dinner, expecting family members to be home for dinner, and seeing dinner as a time for conversation suggest that these current families have established a positive and regular time for family togetherness. Research has shown that family meal values, which include a commitment to eating together regularly as a family, continuity of roles and responsibilities during family meals, as well as healthy communication between family members at meals are associated with promoting children's well-being (Fiese et al., 2006). As these routines are repeated at regular family meals, they become an important emotional part of the families' regular eating behaviors and they may become rituals that can be passed from one generation to the next (Fiese et al., 2002).

The present study is one of the first to examine how eating family meals as a child continues into parenthood. In addition to frequency, we also examined other behaviors related to the family meals such as regular meal routines and meal expectations that may help explain differences between families. There are several study limitations that should be noted. For the question inquiring about family meals while growing up, we did not specify a timeframe (e.g., childhood or adolescence) and there could be individual differences in interpretation of the timeframe. The difference in wording between the question about family meals while growing up, which does not differentiate breakfast, lunch or dinner, and the question about current family meal frequency, which asks specifically about dinner, may cause respondents to think of "meals" differently for the two questions. This difference may have limited our ability to compare responses between the two questions, although perhaps the associations would have been stronger if the meal type had been specific and similar. Finally, while we have data about the frequency of family meals while growing up, we do not know about all of the dynamics that occurred between parents and children during meals, including whether meals are a time for pleasant conversation or contentious arguments. Having more information about parent and child interactions during both past and current family meals would help us better understand how and why family meal expectations and routines continue from one generation to the next (Berge, Jin, Hannan, & Neumark-Sztainer, 2013). The quality of the family interactions at mealtime may be important for explaining continuity across generations (Fiese & Marjinsky, 1999; Malhotra et al., 2013) as well as many of the positive outcomes that have been associated with family meals (Fulkerson et al., 2014; Hammons & Fiese, 2011; Neumark-Sztainer et al., 2010). Future research in this area should determine what aspects of the family meal are attractive to children and adolescents that may increase the likelihood they will continue this tradition with their own children as they become parents. Given the important associations of family meals with health behaviors in the literature, longitudinal work is needed to follow individuals from their early years to parenthood to examine changes in family meals and how health promotion efforts can be maximized.

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Table 1

Parent reported frequency of family meals while growing up by demographic characteristics (HOME Plus study, $N = 160$).

	Family meal frequency when growing up				χ^2
	n (%)	0-3 times per week %	4-5 times per week %	6-7 times per week %	
Age					
24-40	72 (45%)	34	27	39	$\chi^2(2) = 10.9^{**}$
41-65	88 (55%)	15	23	62	
Education					
Less than bachelor's degree	64 (41%)	34	25	41	$\chi^2(2) = 8.1^*$
Bachelor's degree or higher	91 (59%)	16	26	58	
Economic Assistance					
No	97 (61%)	17	27	56	$\chi^2(2) = 5.8$
Yes	62 (39%)	34	23	43	
Race					
White	123 (77%)	19	26	55	$\chi^2(2) = 7.6^*$
Non-white	37 (23%)	40	22	38	

* $p < .05$

** $p < .01$

Current family meal frequency, dinner routines, and meal expectations by parent reported frequency of family meals while growing up (HOME Plus study, $N = 160$).

Table 2

Current meal related behaviors	Family meal frequency while growing up ⁺		
	0–3 times per week	4–5 times per week	6–7 times per week
	LS Mean (SE)	LS Mean (SE)	LS Mean (SE)
Frequency of parent sitting and eating with child in past week	4.0 (.33) _A	4.2 (.31) _A	5.3 (.22) _B **
Family dinner routine scale score	13.0 (.44) _A	13.6 (.41) _{AB}	14.4 (.29) _B *
Family meal expectations scale score	26.3 (.60) _A	26.9 (.56) _{AB}	28.0 (.40) _B *

⁺ Controlling for parent age, education level and race.

Note: Different subscripts represent significantly different mean values.

* $p < .05$

** $p < .01$