



Family food talk, child eating behavior, and maternal feeding practices



Elizabeth Roach^{a, e}, Gail B. Viechnicki^b, Lauren B. Retzlaff^a, Pamela Davis-Kean^{a, c, d},
Julie C. Lumeng^{a, e, f}, Alison L. Miller^{a, g, *}

^a Center for Human Growth and Development, University of Michigan, USA

^b Independent Linguistic Consultant, Silver Spring, MD, USA

^c Institute for Social Research, University of Michigan, USA

^d Department of Psychology, University of Michigan, USA

^e Department of Nutritional Sciences, University of Michigan School of Public Health, USA

^f Department of Pediatrics, University of Michigan Medical School, USA

^g Department of Health Behavior and Health Education, University of Michigan School of Public Health, USA

ARTICLE INFO

Article history:

Received 3 October 2016

Received in revised form

28 March 2017

Accepted 2 June 2017

Available online 3 June 2017

Keywords:

Family

Language

Child eating

Naturalistic methods

Maternal feeding practices

Child weight

ABSTRACT

Families discuss food and eating in many ways that may shape child eating habits. Researchers studying how families talk about food have examined this process during meals. Little work has examined parent-child food-related interactions outside of mealtime. We assessed family food talk at home outside of mealtime and tested whether food talk was associated with obesogenic child eating behaviors, maternal feeding practices, or child weight. Preschool and school-aged mother-child dyads ($n = 61$) participated in naturalistic voice recording using a LENA (Language ENvironment Analysis) recorder. A coding scheme was developed to reliably characterize different types of food talk from LENA transcripts. Mothers completed the Children's Eating Behavior Questionnaire (CEBQ) and Child Feeding Questionnaire (CFQ) to assess child eating behaviors and maternal feeding practices. Child weight and height were measured and body mass index z-score (BMIz) calculated. Bivariate associations among food talk types, as a proportion of total speech, were examined and multivariate regression models used to test associations between food talk and child eating behaviors, maternal feeding practices, and child BMIz. Proportion of child Overall Food Talk and Food Explanations were positively associated with CEBQ Food Responsiveness and Enjoyment of Food (p 's < 0.05). Child food Desire/Need and child Prep/Planning talk were positively associated with CEBQ Enjoyment of Food ($p < 0.05$). Child Food Enjoyment talk and mother Overt Restriction talk were positively associated with CEBQ Emotional Over-Eating ($p < 0.05$). Mother Monitoring talk was positively associated with CFQ Restriction ($p < 0.05$). Mother Prep/Planning talk was negatively associated with child BMIz. Food talk outside of mealtimes related to child obesogenic eating behaviors and feeding practices in expected ways; examining food talk outside of meals is a novel way to consider feeding practices and child eating behavior.

© 2017 Elsevier Ltd. All rights reserved.

1. Introduction

Childhood obesity is prevalent in the United States and tracks across childhood and through adulthood (Cunningham, Kramer, &

Narayan, 2014; Nader et al., 2006). Parents are critical in efforts to prevent obesity (Faith, Scanlon, Birch, Francis, & Sherry, 2004) from early in development (Campbell et al., 2013). Much of what we know about maternal feeding practices comes from self-reported feeding behaviors (Birch et al., 2001; Rodgers et al., 2013) or from observational studies of behavioral interactions during mealtimes (Czaja, Hartmann, Rief, & Hilbert, 2011; Hilbert, Tuschen-Caffier, & Czaja, 2010; Kong et al., 2013; Moens, Braet, & Vandewalle, 2013). Few studies have examined how parents and children talk about food in naturalistic contexts, which may be important in shaping child eating behavior (Wiggins, 2004). We also know little about how such naturalistic interactions around food relate to the self-

Abbreviations: BMI, body mass index; BMIz, body mass index z-score; CEBQ, Child Eating Behavior Questionnaire; CFQ, Child Feeding Questionnaire; LENA, Language Environment Analysis.

* Corresponding author. Associate Research Scientist, Center for Human Growth and Development, University of Michigan, 300 North Ingalls Street, 1023NW, Ann Arbor, MI 48109-0406, USA.

E-mail address: alimill@umich.edu (A.L. Miller).

report measures of maternal feeding and/or child eating that are hypothesized to associate to obesity risk (Domoff, Miller, Kaciroti, & Lumeng, 2015; Faith et al., 2004). Furthermore, despite the decrease in regular mealtimes (Nicklas et al., 2004) and increased snacking among children and adults (Jahns, Siega-Riz, & Popkin, 2001; Piernas & Popkin, 2010), research on how parents and children interact around food outside of meals has been limited.

Frequent family mealtimes are promoted as an obesity prevention strategy, and parent-child feeding interactions during meals are the focus of significant research efforts (Fiese, Hammons, & Grigsby-Toussaint, 2012; Hammons & Fiese, 2011). Yet, findings are not always consistent (Rollins, Belue, & Francis, 2010; Valdes, Rodriguez-Artalejo, Aguilar, Jaen-Casquero, & Royo-Bordonada, 2013). One reason for the inconsistent findings may be that a substantial proportion of parent-child interactions around food occur outside the mealtime context and have historically been unmeasured. A proposed mechanism for the role of frequent family meals in lowered risk for obesity is a reduction in between-meal snacking, for example, yet we know little about food-related interactions outside of mealtimes (Martin-Biggers et al., 2014). Eating outside of mealtimes has increased in recent years (Gilbert, Miller, Olson, & St-Pierre, 2012; Ziegler, Hanson, Ponza, Novak, & Hendricks, 2006) and is proposed as a substantial contributor to excessive child weight gain (Larson & Story, 2013). Child snacking has been shown to be most prevalent during the afternoon (Wang, van der Horst, Jacquier, & Eldridge, 2016), and also to be associated with increased intake of food high in solid fats and added sugars (Davison et al., 2015). As well, parents have reported challenges in managing child snacking behavior and responding to requests for snacks outside of meals (Davison et al., 2015; Norman, Berlin, Sundblom, Elinder, & Nyberg, 2015). Understanding how parents and children talk about food outside of mealtimes (e.g., during after school hours when snacking requests may occur) may therefore be important in developing guidelines for how to manage this phenomenon and represents an important context in which to identify feeding and eating behavior patterns that may increase childhood obesity risk (Larson & Story, 2013).

There is a large literature on feeding practices, or the specific behaviors and strategies that parents use to influence child eating behavior (Hughes et al., 2013; Webber, Cooke, Hill, & Wardle, 2010). Parents' feeding practices as measured by the Child Feeding Questionnaire (CFQ) have been shown to relate to children's observed food preferences, dietary intake patterns, as well as weight status, but findings are not always consistent (Birch et al., 2001). For example, some studies find that restricting children's consumption of foods leads to an enhanced liking of restricted foods and increased intake, as well as higher weight status (Faith et al., 2004; Francis, Hofer, & Birch, 2001), others find that an indulgent feeding style relates to higher child weight status (Hughes, Shewchuk, Baskin, Nicklas, & Qu, 2008), and still others find no association (Powers, Chamberlin, van Schaick, Sherman, & Whitaker, 2006). One factor that contributes to these inconsistencies is the reliance on self-reported data to assess feeding practices, which may lead to response bias (Baranowski et al., 2013; Hughes et al., 2013). Moreover, many frequently-used parent-report measures require parents to reflect on their feeding practices broadly, but do not address feeding in contexts other than mealtime. Learning whether parent-child interactions around food outside of mealtimes relate to self-reported feeding practices would provide a more nuanced and comprehensive understanding of these frequently-used self-report measures. Studies that have observed maternal feeding practices specifically during mealtimes have found positive associations between observed encouraging feeding behaviors, such as food as a reward or praise, and child eating compliance (Haycraft & Blissett, 2008; Orrell-Valente et al.,

2007). Naturalistic, observational assessment of parent-child interactions outside of mealtime has been recommended in order to inform prior findings from observational mealtime research, as it is not clear whether food parenting behaviors are similar across all settings (Boots, Tiggemann, & Corsini, 2016; Hughes et al., 2013).

In addition to direct feeding practices, two primary mechanisms by which parent-child interactions around food outside of mealtime may relate to child eating behaviors and weight are parent modeling and meal planning routines (Fiese et al., 2012; Hughes et al., 2013; Martin-Biggers et al., 2014). Parent modeling of eating has consistently been shown to relate to child eating behaviors, including food intake and attitudes toward food (Brown & Ogden, 2004; Patrick & Nicklas, 2005; Vaughn, Tabak, Bryant, & Ward, 2013). Routines and meal planning have also been highlighted as important for obesity prevention (Fiese et al., 2012), and aspects of these activities can take place outside of mealtime. Yet, the processes that shape how families engage in these behaviors are not clear. Determining to what degree modeling of eating behavior or mealtime planning occur naturalistically outside of the mealtime context is important because this may inform how best to encourage such behaviors in order to promote healthier eating habits and inform family-based obesity prevention efforts.

Finally, child eating behavior, or a child's general approach to food and eating, also plays an important role in the pathway to obesity risk. Parent reports of child eating behavior have been consistently associated with child weight in many studies (Domoff et al., 2015). The child eating behaviors that are most commonly associated with higher child weight are food responsiveness, enjoyment of food, and emotional overeating, whereas desire to drink, satiety responsiveness, slowness in eating, emotional undereating, and food fussiness are either not associated with overweight or are inversely associated (Domoff et al., 2015; Syrad, Johnson, Wardle, & Llewellyn, 2016). Understanding whether the way that parents and children talk about food relates to such child eating behaviors may have unique relevance for understanding childhood obesity risk and for helping parents manage such behaviors in their children.

The goal of the current study was to assess how parents and children talk about food outside of mealtimes in relation to parent-reported feeding practices, parent-reported child eating behaviors, and child weight. We used an enhanced digital recording approach (the Language ENvironment Analysis System; LENA Research Foundation, Boulder, CO) to characterize food talk outside of mealtime as it occurred in naturalistic home settings. We examined associations between different types of "digitally observed" food talk and parent-reported feeding practices and child eating behaviors that are known to associate with child weight. Specifically, based on a corpus of approximately 60 h of audio-recorded conversations with families of children in the preschool-age (3–5 years) or school-age (10–12 years) range, we addressed four aims. First, we documented the nature of parent and child food talk outside of the mealtime context. Second, we tested whether parent and child food talk outside of mealtime was associated with parent-reported feeding practices. Third, we examined whether food talk outside of mealtime was associated with parent-reported child eating behaviors. Finally, we tested whether food talk outside of mealtimes was associated with child weight (BMI z-score). We hypothesized that more overall food talk (as a proportion of total speech) would be positively associated with greater endorsement of feeding and child eating behaviors known to associate with child overweight/obesity. Although we did not have specific hypotheses for every food talk type that was coded, we did hypothesize that child food talk indicating enjoyment or requests for food would positively associate with greater mother-reported CEBQ Enjoyment, Food Responsiveness, and Emotional Overeating, and

Download English Version:

<https://daneshyari.com/en/article/5044056>

Download Persian Version:

<https://daneshyari.com/article/5044056>

[Daneshyari.com](https://daneshyari.com)