



Approaches to restrictive feeding: Associations with child weight and eating behavior

Megan H. Pesch^{a,b}, Danielle P. Appugliese^c, Alison L. Miller^{b,d}, Katherine L. Rosenblum^{b,e}, Julie C. Lumeng^{b,f,g}, Katherine W. Bauer^{b,g,*}

^a Division of Developmental and Behavioral Pediatrics, Department of Pediatrics and Communicable Diseases, University of Michigan, 300 N. Ingalls Street, 1109 SE, Ann Arbor, MI 48109-5456, USA

^b Center for Human Growth and Development, University of Michigan, Ann Arbor, MI 48109-5456, USA

^c Appugliese Professional Advisors, 5 Piece Way, North Easton, MA 02334, USA

^d Department of Health Behavior and Health Education, School of Public Health, University of Michigan, 3718 SPH Building I, Ann Arbor, MI 48109-2029, USA

^e Department of Psychiatry, Medical School, University of Michigan, 4250 Plymouth Road, Rachel Upjohn Building, Ann Arbor, MI 48109, USA

^f Division of Developmental and Behavioral Pediatrics, Department of Pediatrics and Communicable Diseases, University of Michigan, 300 N. Ingalls Street, 300 North Ingalls Street, Ann Arbor, MI 48109-0406, USA

^g Department of Nutritional Sciences, School of Public Health, University of Michigan, 3845 SPH I, 1415 Washington Heights, Ann Arbor, MI, 48109-2029, USA

ARTICLE INFO

Keywords:

Restriction
Obesity
Mother
Child
Eating behaviors

ABSTRACT

Background: Identifying differences in how mothers communicate restriction of their children's eating may be important to understanding the effects of restriction on children's intake and weight status.

Objectives: To characterize mothers' restrictive statements by affect and directness, and examine cross-sectional associations between restrictive statement types and children's body mass index and eating behaviors.

Methods: Mother-child dyads (N = 223, mean child age 5.9 years) participated in a structured eating task. A coding scheme reliably characterized mothers' restrictive statements. Mothers completed measures of child enjoyment of food, food responsiveness, and satiety responsiveness, and child anthropometrics were measured. Poisson regression was used to test associations between type of restrictive statements and child BMI z-score (BMIz) and eating behaviors, adjusting for covariates.

Results: Higher child BMIz was associated with mothers' more frequent use of negative direct restrictive statements, but not other types of statements. This association was stronger among girls (RR (95% CI) = 2.28 (1.45–3.59)) than boys (RR (95% CI) = 1.49 (1.05–2.10)). Among girls, but not boys, higher enjoyment of food and lower satiety responsiveness were associated with more frequent positive direct restrictive statements (RR (95% CI) = 1.63 (1.20–2.21) and RR (95% CI) = 1.94 (1.29–2.92), respectively). For both sexes, mothers' use of positive indirect restrictive statements was more frequent among children with higher enjoyment of food (RR (95% CI) = 1.38 (1.11–1.72)).

Conclusions: The statements mothers use to restrict their children's eating vary in affect and directness. Child characteristics, such as sex, BMI, and the presence of specific eating behaviors, are associated with differing approaches to restriction by mothers.

1. Introduction

Parents' use of restrictive feeding practices, and the potential impact of restrictive feeding on child eating and obesity, has received significant attention (Faith, Scanlon, Birch, Francis, & Sherry, 2004; Rollins, Savage, Fisher, & Birch, 2016). Early evidence suggested that restrictive feeding overrides children's internal satiety signals and

increases desire for forbidden foods (Birch & Fisher, 1998). This work informed current obesity prevention and treatment guidelines that encourage parents to avoid overly-restrictive feeding practices and avoid restricting access to specific foods (Barlow & Expert, 2007; Gidding et al., 2006). However, longitudinal studies investigating the associations between restrictive feeding, child eating behaviors, and child weight are inconclusive. Some studies have found that maternal

* Corresponding author at: Department of Nutritional Sciences, University of Michigan School of Public Health, 3845 SPH I, 1415 Washington Heights, Ann Arbor, MI 48109-2029, USA.

E-mail addresses: pesch@umich.edu (M.H. Pesch), alimill@umich.edu (A.L. Miller), katier@umich.edu (K.L. Rosenblum), jlumeng@umich.edu (J.C. Lumeng), kwbauer@umich.edu (K.W. Bauer).

<https://doi.org/10.1016/j.eatbeh.2018.08.006>

Received 21 December 2017; Received in revised form 9 August 2018; Accepted 22 August 2018

Available online 23 August 2018

1471-0153/ © 2018 Elsevier Ltd. All rights reserved.

restriction predicts increases disinhibited eating among children, increasing risk for obesity (Birch, Fisher, & Davison, 2003), while others have found no prospective associations between restriction and children's disinhibited eating (Bauer et al., 2017; Matton, Goossens, Braet, & Van Durme, 2013). Furthermore, parental restriction has been associated with increases in child body mass index (BMI) in some studies (Faith et al., 2004), but others have observed no associations between restrictive feeding and children's BMI change (Campbell et al., 2010; Gubbels et al., 2011; Webber, Hill, Cooke, Carnell, & Wardle, 2010).

One reason that existing research on the potential impacts of restrictive feeding is inconclusive may be that in nearly all prior studies, restriction has been operationalized as a homogenous practice. It has rarely been considered that there may be important differences in how individual parents or sub-populations of parents communicate restriction, and that these differences have differential impacts on child eating and weight. Nearly all prior studies of restrictive feeding have used the restriction subscale of the Child Feeding Questionnaire (CFQ) (Birch et al., 2001), or minor adaptations, to measure restriction. The CFQ restriction subscale provides a summary score indicating the extent to which parents endorse attitudes and practices regarding restricting their children's eating. This measure does not capture how restriction is communicated or implemented.

Affect and directness are two important components of parent-child communication. Affect refers to the degree of warmth and empathy communicated in statements (Pesch, Miller, Appugliese, Rosenblum, & Lumeng, 2016), while directness refers to the extent to which a statement specifically addresses the others' behavior versus a more abstract statement about the value of a behavior (Pesch, Miller, Appugliese, Rosenblum, & Lumeng, 2018). For example, a direct statement by parents to children would be, "Put on your shoes" while an indirect statement would be, "It's important that we wear shoes outside." Statements that are affectively positive and direct best align with an authoritative parenting style (Baumrind, 1971) in which parents clearly communicate rules and boundaries in a manner that is sensitive and responsive to children's emotions. Consistent associations have been observed between parents' authoritative parenting style, and authoritative feeding style, and lower risk of obesity among children (Hubbs-Tait, Kennedy, Page, Topham, & Harrist, 2008; Patrick, Nicklas, Hughes, & Morales, 2005). Understanding the extent to which parent-child communications around limiting their child's intake of unhealthy foods reflect the dimensions of authoritative parenting, and how parent communications that vary in affect and directness may differentially impact children's eating and weight, can support the development of more specific guidance to parents regarding effective approaches to moderate their children's eating.

Prior work by the study team has separately examined the affect and directness of mothers' restrictive feeding statements (Pesch et al., 2016; Pesch, Miller, et al., 2018). This research identified that mothers of children with obesity used more negative restrictive statements and more direct restrictive statements than mothers of children without obesity (Pesch et al., 2016; Pesch, Miller, et al., 2018). However, these analyses did not consider the combination of affect and directness together despite literature suggesting differences in child compliance in response to parental statements that are warm versus harsh, and direct versus indirect (Kuczynski, Kochanska, Radke-Yarrow, & Ginius-Brown, 1987; Owen, Slep, & Heyman, 2012; Wilson & Wood, 2004). These findings, along with the team's work among a small sample of parents providing preliminary evidence of the feasibility of characterizing restrictive statements by affect and directness (Pesch et al., 2018), support the assertion that looking beyond whether mothers endorse beliefs and practices with regard to restriction, to the qualities of their restrictive statements, may yield important insight into harmful versus effective approaches to limit children's intake. Given this knowledge, it is critical to understand parents' use of statements that vary on dimensions of affect and directness in order to ultimately identify how these approaches to moderating children's eating may impact children's

eating cognitions and behaviors.

Differences in how parents interact with their children around moderating their intake of unhealthy foods may also exist by child sex. It has been hypothesized that parents perceive certain eating behaviors as more problematic in their female children given greater societal pressures towards thinness in girls versus boys, and therefore may be more prone to monitor and restrict their daughters' intake (Fisher & Birch, 1999). However, to date, empirical research is inconclusive. At least one study has found that parents are more likely to engage in restrictive feeding with their daughters than sons (Costanzo & Woody, 1984), while other studies have not observed differences in parental restriction by child sex (Gray, Janicke, Wistedt, & Dumont-Driscoll, 2010; Spruijt-Metz, Lindquist, Birch, Fisher, & Goran, 2002; Wardle, Carnell, & Cooke, 2005). None of these studies have examined differences in how parents communicate restriction.

Given these gaps in our understanding regarding the nuances of how mothers communicate restriction to their children, and the extent to which mothers use different communication of restriction by characteristics of their children (e.g., sex, weight status, and eating behavior), the first objective of the current study is to characterize mothers' restrictive statements during a recorded, standardized eating protocol on dimensions of both affect and directness simultaneously. This approach allows for distinction between four types of statements: positive direct, positive indirect, negative direct, and negative indirect. The second objective is to examine cross-sectional associations between mothers' use of the four types of restrictive statements, child BMI z-score (BMIz), and child eating behaviors that have been associated with increased risk of obesity (Carnell & Wardle, 2007) including within this cohort (Domoff, Miller, Kaciroti, & Lumeng, 2015), as well as the extent to which these associations vary by child sex. By identifying how mothers' restrictive statements differ with respect to both affect and directness, and how mothers differentially use these types of restrictive statements in the presence of different child characteristics, this study will progress our understanding of the nuance in maternal restrictive feeding practices.

2. Materials and methods

2.1. Participants

Participants in the current study were a sample of 223 low-income mother-child dyads (mean child age 5.9 years, range 4.0–8.1 years) from southern Michigan. Participants were part of a longitudinal cohort, originally recruited between 2009 and 2011 through their child's Head Start program (a free, federally subsidized preschool program for children living in poverty). Data from the current study were obtained from the second large study to be conducted with this cohort, 2 years after the cohort was recruited, which aimed to understand maternal feeding practices. Of the 380 dyads from the original cohort, 296 participated in this second study. Of the 296 mothers participating in the second study, 95% were biological mothers. The remaining 5% were grandmothers, adoptive mothers, and stepmothers.

Children recruited into the original cohort must not have been born prior to 35 weeks gestation and could not have had significant perinatal or neonatal complications, serious medical problems or food allergies, exhibited disordered eating, or have been in foster care at time of recruitment. Dyads were also excluded if the mother did not speak English fluently or if she reported that she had completed a bachelor's degree. Additional exclusion criteria for the current study included if the mother had a food allergy or if the child had developed a new food allergy since the time of recruitment. The University of Michigan Institutional Review Board approved the study, mothers provided written informed consent and were compensated \$60 for their participation in the data collection process for the current study.

The sample for this analysis was limited to dyads with complete demographic, anthropometric, and relevant questionnaire data, and

Download English Version:

<https://daneshyari.com/en/article/11004473>

Download Persian Version:

<https://daneshyari.com/article/11004473>

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