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Mindful feeding: A pathway between parenting style and child eating behaviors

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ABSTRACT

Certain child eating behaviors (e.g., food fussiness, emotional overeating, and disruptive mealtime behaviors) can create challenges for caregivers and result in short- and long-term health consequences (e.g., lower fruit and vegetable intake, a deficiency of essential nutrients, greater intake of energy-dense foods and sugary beverages, and/or higher BMI) for the children. The role of mindful feeding—cultivating a present-centered awareness in the feeding context to increase parents' awareness of their own responsive (and non-responsive) feeding behaviors—has not been explored as it relates to parenting and children's problematic eating behaviors. The objective of this study was to understand whether the relations between parenting style and child eating behaviors often documented in the literature are mediated by mindful feeding. Using self-reports from Amazon's Mechanical Turk (MTurk) of 496 mothers and fathers of young children (age 2–7 years old), we explored whether mindful feeding mediates the relation between parenting style and child eating behaviors. As hypothesized, authoritative parenting was related to higher rates of mindful feeding (β = .16, 95% C.I. [.05, .18]), while authoritarian (β = −.34, 95% C.I. [-.32, -.17]) and permissive parenting (β = -.15, 95% C.I. [-.18, -.05]) were related to lower rates of mindful feeding. Mindful feeding mediated the relation between each parenting style and each child eating behavior (i.e., food fussiness, problematic mealtime behaviors, and emotional overeating). These findings suggest that that mindful feeding may be a promising new construct, and its relation to feeding interventions aimed at improving problematic child eating behaviors should be further evaluated.

1. Introduction

Feeding is often a source of conflict for parents. When children display difficult behaviors, they may disrupt mealtimes and complicate parents' attempts to feed them healthy foods and portions (Adamson, Morawska, & Wigginton, 2015; Fulkerson, Story, Neumark-Sztainer, & Rydell, 2008). Food fussiness, emotional over-eating, and disruptive mealtime behavior (i.e., behaviors that parents find to be challenging while feeding their children during a structured meal time) are common eating behaviors in children that can pose challenges to caregivers both within and outside of specified mealtimes (Dovey, Staples, Gibson, & Halford, 2008; Finnane, Jansen, Mallan, & Daniels, 2017; Sweetman, McGowan, Croker, & Cooke, 2011; Webber, Hill, Saxton, Van Jaarsveld, & Wardle, 2009). In addition to inducing stress, children's negative eating behaviors can impact health behaviors. For example, children who are fussy eaters reject many foods, and a recent review of the literature suggests that some researchers have found that food fussiness is correlated with less dietary variety and lower fruit and vegetable intake (Taylor, Wernimont, Northstone, & Emmett, 2015). Similarly, emotional over-eating (eating in response to negative affect) has long been linked to greater intake of energy-dense foods and sugary beverages (Nguyen-Michel, Unger, & Spruijt-Metz, 2007) and higher BMI (Braet & Van Strien, 1997; Webber et al., 2009). Further, although some researchers have not found a relation between mealtime behavior and BMI (Briones et al., 2018), some research indicates that children who display disruptive behavior are more likely to have a higher BMI (Anderson, Cohen, Naumova, & Must, 2006) and consume a lower quality diet with inadequate nutrition (Johnson et al., 2014), fewer fruits and vegetables, and more sugar sweetened beverages (Ptacek et al., 2014).

Although the relation between parenting and children's eating is likely bi-directional, with parents' practices both influencing and resulting from children's behaviors, researchers have primarily examined the effect that parents have on children's behaviors. Specifically, researchers have examined both general parenting style and specific feeding practices as they relate to child outcomes. Parenting style is the overall system of values, beliefs, and parenting practices used by a parent (Kiefner-Burmeister, Hoffmann, Zbur, & Musher-Eizenman,

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2016). Baumrind (1971) identified three primary parenting styles: permissive, authoritarian, and authoritative. Permissive (or Indulgent) parents place few age-appropriate limits on their children but are extensively involved in and accepting of their children's lives. Authoritarian parents have high demands and expectations for children's behavior but are less warm, accepting, and involved with their children. An authoritative parenting style combines both age-appropriate structure and monitoring with acceptance, warmth, and involvement. Compared to other parenting styles, authoritative parenting has been related with lower child BMI and higher levels of fruit consumption (Kakinami, Barnett, Séguin, & Paradis, 2015; Kremers, Brug, de Vries, & Engels, 2003; Rhee, Lumeng, Appugliese, Kaciroti, & Bradley, 2006; Sokol, Qin, & Poti, 2017). However, these findings may not be consistent across the literature (Berge, Wall, Loth, & Neumark-Sztainer, 2010; Ventura & Birch, 2008), which may be the result of either inconsistent measurement of children's dietary outcomes (e.g., retrospective reports versus 24-hr food diaries) or unexplored mediating variables (Lopez et al., 2018).

Within the broad context of parenting styles, parents also bring specific knowledge, beliefs, and practices to the feeding relationship (Musher-Eizenman & Kiefner, 2013). Research has established a relation between food parenting practices and child eating behaviors (e.g., Hurley, Cross, & Hughes, 2011; Roberts, Marx, & Musher-Eizenman, 2018; Sleddens et al., 2014). Further, parents who report authoritative parenting styles use more healthy feeding practices than parents who have an authoritarian or permissive parenting style (Kiefner-Burmeister et al., 2016; Roberts et al., 2018). Additionally, feeding styles (i.e., feeding practices that have been mapped on to the domains of authoritative, authoritarian, uninvolved, and indulgent feeding styles) have similarly been related with health outcomes (Hughes, Power, Fisher, Mueller, & Nicklas, 2005). For example, authoritative feeding has been related with a higher consumption of vegetables (Patrick et al., 2005). Although feeding styles and parenting styles are related, they are not always congruent (Hennessy et al., 2010). Overall these findings suggest that parenting style creates a context for specific food-parenting practices.

To conceptualize the relation between general parenting style, food parenting, and child behaviors, Sleddens, Gerards, Thijs, de Vries, and Kremers (2011) proposed that general parenting style may indirectly affect child eating behaviors through specific parenting practices (i.e., mediation). Consistent with this, Lopez et al. (2018) found that mealtime structure mediated the relation between each parenting style and dietary quality. Indirect effects through parent modeling of healthy eating and household food rules and with other child dietary outcomes (daily servings of fruits and vegetables and daily added sugars) were not statistically significant, suggesting specific parenting practices may explain the relation between parenting style and child eating and dietary outcomes.

One such food parenting practice is mindful feeding. Although researchers have begun to explore "mindful parenting," defined as parents working towards a nonjudgmental attention and awareness to their children (Duncan, Coatsworth, & Greenberg, 2009), the construct currently remains understudied. Duncan et al. (2009) argue that when parents incorporate mindfulness into their parenting, they attend to their children in a value-consistent, deliberate way, rather than simply responding automatically. Researchers have found that mindful parenting interventions have been effective in reducing child behavior problems (e.g., non-compliance, externalizing problems; (Cohen & Semple, 2010). Within this framework, Meers (2013) proposed that parents could use mindfulness in their existing food parenting practices. Meers (2013) developed the first measure of mindful feeding, which was validated with exploratory and confirmatory factor analyses in independent samples of parents of 3- to 6-year-old children. Emley, Taylor, and Musher-Eizenman (2017) further conceptualized mindful feeding as cultivating a present-centered awareness in the feeding context to increase parents' awareness of their own responsive (and non-responsive) feeding behaviors. For example, mindful feeding may help parents encourage their children to identify and express when they are hungry or satiated. Further, mindful feeding can help parents respond to their child's other emotional and behavioral cues (e.g., bids for attention). This could decrease parents' emotional and behavioral reactivity to children's mealtime behaviors (e.g., tantrums during meals or refusing food).

Although research on mindful feeding is limited, initial findings are promising. Emley et al. (2017) also found that parents who used mindful feeding reported that their children consumed more fruits and vegetables and less added sugar. Furthermore, parents who were more mindful in general also exhibited higher mindfulness when feeding their children, suggesting that much like the relationship between parenting style and feeding, overall mindful parenting is likely related to the specific use of mindful feeding practices. Collectively, although there is still limited research on mindful feeding practices, both Meers (2013) and Emley et al. (2017) suggest that mindful feeding may be an important component of food parenting that contributes to the already established link between overall parenting style and children's eating outcomes.

The objective of this study was to understand whether the relations between parenting style and child eating behaviors often documented in the literature are mediated by mindful feeding. In the current study, we hypothesized that compared to authoritarian and permissive parents, authoritative parents would report that their children are less likely to eat in response to emotions, less likely to be fussy eaters, and less likely to have problematic mealtime behaviors and that this relation would be mediated by higher rates of mindful feeding.

2. Methods

2.1. Participants

Participants were recruited through Amazon's Mechanical Turk (MTurk) as part of a larger study on parental feeding practices. The sample comprised 496 parents of children from 2.8 to 7.5 years old (M = 4.7; SD = 1.1 years) and included both mothers (n = 376) and fathers (n = 117), and two parents who did not specify a gender. Parents ranged from 19 to 65 years old (M = 32.5; SD = 6.6 years). Approximately two-fifths of child BMIs could not be computed due to missing or extreme data. Due to the large amount of missing data, child BMI was not used in subsequent analyses. Parent BMI ranged from 15.07 to 50.48 (M = 27.09; SD = 6.42). Additionally, participants reported the number of children in their home, and were instructed to answer items about one specific child. If participants had more than one child between the ages of 4–6, they were instructed to answer the questions about the child whose name comes first alphabetically. The mean number of children living in the home was 1.96 (SD = 1.11). Most (79%) of parents identified as Caucasian, 8% as African-American, 5% as Multiracial, 4% as Hispanic, and 2% as Asian. Almost half (44%) were employed full-time, with 14% part-time, and 32% worked in the home. Regarding income, 7.5% of the sample reported an annual household income of less than $20,000, 39% reported earning between $20,000 - $50,000 per year, 34% reported earning between $50,000 and $80,000 per year, and 17% reported earning more than $80,000 per year. Regarding education level, 11% of the sample completed a GED or High School Diploma, 28% completed some college, 16% obtained an Associate degree, 30% a Bachelor's degree, and 16% completed at least some graduate school. Geographically, parents represented 49 of the 50 United States, with no more than 8% from any single state (California).

2.2. Procedure

The university's institutional review board approved the protocol. Parents who were interested in participating followed a link from

MTurk to an online survey hosted by Qualtrics. The voluntary and confidential nature of this study was emphasized. Participants were presented with an informed consent and indicated consent by selecting "next." Data were screened for non-completed surveys (i.e., less than 50% of the survey was completed), completion time (under 10 minutes), patterned responses (e.g., the same response for every item on a scale), incorrect responses to quality control items (e.g., that instructed participants to select a certain response), or low-quality responses on open-ended items (e.g., random letter sequences). Based on these criteria, more than 90% of parents who completed the survey were considered valid participants and their data were retained. Participants who offered high quality data were compensated $0.75 through MTurk.

2.3. Measures

2.3.1. Demographics

Participants reported their age, gender, income, level of education, weight (in pounds), and height (in feet and inches). They reported their child's age, gender, weight, and height. Researchers calculated parents' BMI using the standard formula BMI = kg/m^2.

2.3.2. Mindful feeding

The Present Centered Awareness subscale of the Mindful Feeding Questionnaire (Meers, 2013) comprised 4 items that measure parents' mindful attention when feeding their children. Although the original validation study of this measure proposed a four-factor model of mindful feeding, the current study only used the Present Centered Awareness subscale as it had strong psychometric properties in both the original validation study (α = .76) and the current sample (α = .75). The items for feeding with present centered awareness are, "I tend to feed my child while I am doing many other things (Reverse coded)" "When I feed my child, I am often distracted by other thoughts (Reverse coded)," "When I am feeding my child, I am completely focused on what I am doing," and "I rush through meals with my child without really paying attention to them (Reverse coded)." Participants responded on a 5-point Likert scale ranging from Never (1) to Always (5). Higher mean scores indicated more focus while feeding. To establish validity of this nascent construct, we examined relations with measures from the Comprehensive Feeding Practices Questionnaire (Musher-Eizenman & Holub, 2007). Mindful feeding was positively correlated with responsive feeding (r = .11, p < .05), and mindful feeding was negatively correlated with distracted feeding (r = -.51, p < .001). These small to moderate correlations suggest that responsive and distracted feeding overlap, but are distinct from mindful feeding.

2.3.3. Child eating behavior

Subscales from the Child Eating Behavior Questionnaire (Wardle, Guthrie, Sanderson, & Rapoport, 2001) measured parents' reports of their children's emotional over-eating and food fussiness. In the interest of parsimony, other subscales of the CEBQ were not included in data collection as they overlapped with constructs measured using other scales. Three items measuring children's tendency to eat in response to emotions, such as anxiety or frustration, form the Emotional Over-eating subscale (α = .91). The Food Fussiness subscale comprised 6 items that assessed children's reluctance to try novel foods (α = .90). Participants responded on a 5-point Likert scale from Never (1) to Always (5). Higher mean scores indicated more emotional over-eating and more reluctance to try new foods.

2.3.4. Problematic mealtime behaviors

The ten-item Problematic Child Mealtime Behaviors subscale from the Meals in Our Household questionnaire (α = .85, Anderson, Must, Curtin, & Bandini, 2012). This subscale was selected as it is the only subscale that measured child behavior. The Problematic Child Mealtime Behaviors subscale assessed a variety of mealtime concerns, such as refusing to eat what is served or having tantrums during meals. If parents indicated that their child engaged in these behaviors, they were asked a follow-up question about each behavior asking them to rate how much of a problem it caused (e.g., "how much of a problem is it that your child refuses to eat what is served?"). Responses were on a 4-point Likert scale, with answers ranging from Not a Problem (1) to Large Problem (4). Higher mean scores indicated greater disturbance due to mealtime behaviors.

2.3.5. Parenting style

The Parenting Practices Questionnaire (Robinson, Mandleco, Olsen, & Hart, 1995) was used to measure general parenting style, following Baumrind's (Baumrind, 1971) models of authoritative, authoritarian, and permissive parenting. The authoritative subscale (α = .89) comprised 15 items, the authoritarian subscale (α = .87) comprised 11 items, and the permissive subscale (α = .74) included 5 items. Responses were a 5-point Likert scale with answers ranging from Never (1) to Always (5). Each participant received a continuous score on each parenting style. Due to the social desirability of authoritative items, participants endorse these items more frequently than the authoritarian and permissive items. So, to compare parents meaningfully to one another, standardized scores on each parenting style with a mean of 0 and a standard deviation of 1 were used for analyses (Abdi, 2007). This allows for comparison of the participant's responses in each domain compared to other respondents.

2.4. Analyses

Using MPLUS version 7.1 (Muthén & Muthén, 1998), we tested a mediation model to determine whether mindful feeding mediated the relation between parenting style (authoritative, authoritarian, and permissive) and child eating behaviors (emotional over-eating, problematic mealtime behaviors, and food fussiness). Based on significant correlations with major study variables, child age, parent age, income, education, number of children in household, and parent BMI were entered into the model as covariates for both the mediator and outcome variables. Further, based on significant mean differences across major study variables, parent and child gender were entered into the model as covariates. All predictor variables and all outcome variables were specified to covary. A bootstrapping procedure using 5000 resamples was used to assess the indirect effects. Sixteen participants were missing data of a predictor variable and were excluded from the analyses.

3. Results

3.1. Descriptive statistics

Means and standard deviations of major study variables are presented overall in Table 1 and separately for mothers and fathers in Table 2. Correlations between all variables are presented in Table 3.

3.2. Major analyses

Overall, the three reported parenting styles were related to mindful feeding. Parents who reported more authoritative parenting also reported higher levels of mindful feeding; parents who reported more authoritarian and permissive parenting reported less mindful feeding. Mindful feeding was also related to lower levels of the three parent-reported child eating behaviors (emotional over-eating, food fussiness and problematic mealtime behaviors). Path coefficients for major study variables are in Fig. 1.

3.2.1. Authoritative parenting

As seen in Fig. 1, parent-reported authoritative parenting had a significant negative direct effect on reports of the child's emotional over-eating and food fussiness but not problematic mealtime behaviors. Through mindful feeding, authoritative parenting had a significant

Table 1
Means and Standard Deviations of Major Study Variables.

Variable	*M* (*SD*)	Possible Range	Cronbach's Alpha	n
Mindful Feeding	3.60 (.73)	1 – 5	.75	484
Emotional Over-Eating	1.67 (.78)	1 – 5	.91	491
Food Fussiness	2.76 (.90)	1 – 5	.90	491
Problematic Mealtime Behaviors	2.19 (.63)	1 – 4	.85	488
Authoritative Parenting	3.99 (.60)	1 – 5	.89	488
Authoritarian Parenting	1.85 (.62)	1 – 5	.87	488
Permissive Parenting	2.15 (.76)	1 – 5	.74	488

Note: The raw parenting style means and standard deviations are reported; however, the scores were standardized in the analyses.

Table 2
Means and Standard Deviations of Major Study Variables for Mothers and Fathers.

	Mother *M (SD)*	Father *M (SD)*
Mindful Feeding	3.64	3.50
Emotional Over-Eating**	1.60	1.87
Food Fussiness	2.76	2.75
Problematic Mealtime Behaviors	2.18	2.22
Authoritative Parenting***	4.07	3.75
Authoritarian Parenting***	1.78	2.07
Permissive Parenting**	2.09	2.36

Note: Mean differences between mothers and fathers are indicated with ** p < .01, ***p < .001.

indirect effect on emotional over-eating (β = -.03, 95% C.I. [-.05, -.01]), food fussiness (β = -.04, 95% C.I. [-.07, -.01]), and problematic mealtime behaviors (β = -.05, 95% C.I. [-.08, -.01]). Based on interpretive standards for mediation described by Zhao, Lynch, and Chen (2010), because there is both a significant negative indirect and direct effect of authoritative parenting on emotional over-eating and food fussiness, these results suggest complimentary mediation (i.e., mediation in which the mediated effect and direct effect are both significant and are in the same direction). Because there is only a significant indirect effect of authoritative parenting on problematic mealtime behaviors, these results suggest indirect-only mediation (i.e., mediation in which the mediated effect is significant, but the direct effect is not significant).

3.2.2. Authoritarian parenting

Parent-reported authoritarian parenting had a significant positive direct effect on parent's reports of the child's emotional over-eating but not food fussiness or problematic mealtime behaviors. Indirect effects of authoritarian parenting the three child eating behaviors through mindful feeding were significant: emotional over-eating (β = .07, 95% C.I. [.03, .10]), food fussiness (β = .09, 95% C.I. [.04, .13]), problematic mealtime behaviors (β = .10, 95% C.I. [.05, .15]), suggesting complimentary mediation for emotional over-eating and indirect-only mediation for food fussiness and problematic mealtime behaviors.

3.2.3. Permissive parenting

Parent-reported permissive parenting had a significant positive direct effect on parent's report of the child's emotional over-eating, food fussiness, and problematic mealtime behaviors. Permissive parenting also had a significant indirect effect, through mindful feeding, on the three child eating behaviors: emotional over-eating (β = .03, 95% C.I. [.01, .05]), food fussiness (β = .04, 95% C.I. [.01, .07]), problematic mealtime behaviors (β = .05, 95% C.I. [.02, .08]), suggesting complimentary mediation.

4. Discussion

We used a national sample of mothers and fathers of young children to examine the relation between parents' reports of their parenting style and their children's eating behaviors. Sleddens et al. (2011) suggested that specific feeding practices mediate this relation; however, researchers have not yet explored mindful feeding as a possible mediator. As hypothesized, authoritative parents used higher rates of mindful feeding relative to permissive and authoritarian parents. Parents who used more mindful feeding strategies also reported that their children were less likely to eat in response to emotions, less likely to be fussy eaters, and less likely to have problematic mealtime behaviors. These results may shed some light on the commonly reported association between general parenting style and child eating behaviors.

In our models, reports of authoritative and authoritarian parenting style and problematic mealtime behaviors were indirectly related through mindful feeding. Similarly, authoritarian parenting and food fussiness were indirectly related through mindful feeding. This suggests that among authoritative and authoritarian parents, parents' mindful feeding (rather than overall parenting style) is proximally related with children's problematic mealtime behaviors. Likewise, among

Table 3
Correlations Between Variables.

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1. Parent Age	1											
2. Children in House	.22**	1										
3. Income	.14**	.00	1									
4. Education	.12**	−.10*	.38**	1								
5. Child Age	.15**	.13**	.04	.00	1							
6. Parent BMI	.06	.11*	−.17**	−.13**	.02	1						
7. Mindful Feeding	.03	.00	.02	−.11*	−.04	−.13**	1					
8. Emotional Over-eating	−.10*	−.12**	.02	.04	.03	−.04	−.40**	1				
9. Food Fussiness	.03	−.04	.08	.05	−.02	.06	−.32**	.14**	1			
10. Problematic Mealtime Behaviors	.01	−.05	.07	.08	−.12**	.10*	−.38**	.20**	.57**	1		
11. Authoritative Parenting	.03	.03	−.00	−.06	.05	−.05	.32**	−.33**	−.18**	−.14**	1	
12. Authoritarian Parenting	−.11*	−.06	−.04	−.04	.01	.14**	−.47**	.46**	.16**	.26**	−.43**	1
13. Permissive Parenting	−.03	−.07	−.13**	−.06	−.00	.12**	−.31**	.35**	.25**	.30**	−.19**	.40**

Note: * $p < .05$; ** $p < .01$.

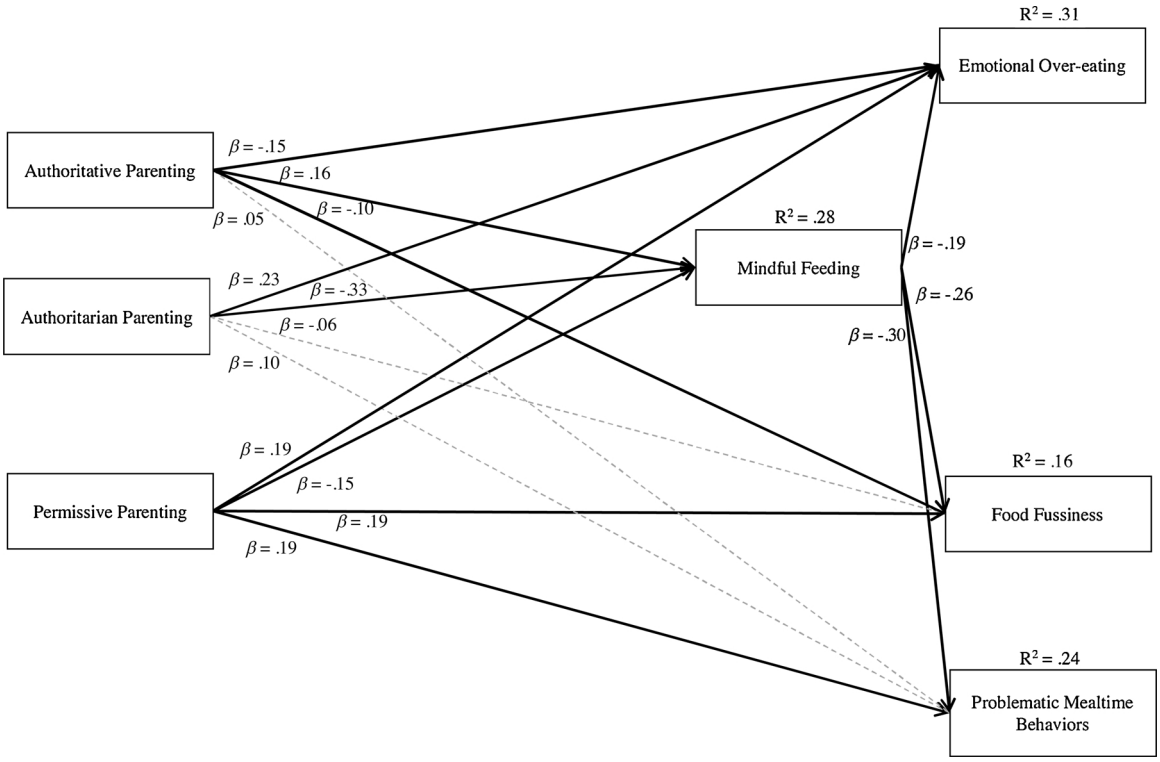

Fig. 1. Path analysis model of the relation between parenting style and child eating behaviors, with mindful feeding as a mediator. Covariates include the following: child age, parent age, number of children in the home, parent level of education, parent gender, child gender, parent BMI, and family income. Broken lines represent non-significant paths; complete lines represent paths in which the confidence interval did not include zero.

authoritarian parents, a lack of mindful feeding may contribute to food fussiness.

These findings add to a growing body of literature that demonstrates that mindful parenting is related to general parenting styles (e.g., McCaffrey, Reitman, & Black, 2017), and suggest that it may be beneficial to further examine mindfulness in specific parenting contexts. Also, consistent with research showing that authoritative parenting is related to feeding practices (e.g., modeling healthy eating) that are related with healthy outcomes (e.g., higher fruit and vegetable intake; Hughes et al., 2005; Johnson, Welk, Saint-Maurice, & Ihmels, 2012; Kiefner-Burmeister et al., 2016), our findings revealed that authoritative parenting style is positively related with mindful feeding. Similarly, consistent with studies linking permissive and authoritarian parenting with fewer feeding practices that are related with healthy outcomes (Hughes et al., 2005; Johnson et al., 2012; Kiefner-Burmeister et al., 2016), our findings revealed a negative association between mindful feeding and both authoritarian and permissive parenting styles. Additionally, our results mirrored previous findings that mindful feeding is associated with positive eating outcomes (Emley et al., 2017), as mindful feeding was associated with lower levels of children's food fussiness, emotional over-eating, and problematic mealtime behaviors. Collectively, our results suggest that mindful feeding may promote children's healthy eating by decreasing negative eating behaviors such as pickiness, emotional over-eating, or behavioral problems during mealtimes.

5. Limitations and future directions

Due to the nature of cross-sectional data, we were only able to examine relationships among variables and cannot draw causal conclusions. Substantial research demonstrates that feeding practices are bi-directional—parents adapt their feeding behaviors to suit their children's needs, and children's eating changes with their parent's feeding practices (Harris, Fildes, Mallan, & Llewellyn, 2016; Jansen et al., 2017). For example, it is possible that when children are more challenging eaters, it might be harder for parents to feed them mindfully. Future research utilizing longitudinal designs could examine how children's eating behaviors and parents' mindful feeding practices influence each other across time. Similarly, future research should explore the way individual characteristics (of both the parent and the child) affect this relationship. Further, self-report data is inherently limited (e.g., social desirability bias, self-selection). On the other hand, this approach allowed us to include many fathers, a historically underrepresented group in the parent feeding literature, and allowed us to explore an understudied construct (mindful feeding). Future research should also further refine the construct of mindful feeding and work to develop more comprehensive and nuanced measures in order to better understand how mindful feeding is related to important health and behavior outcomes. Another limitation of the current study is the exclusion of BMI from analyses due to missing or extreme data. Future studies should utilize multi-method and experimental designs to further clarify these relations. For instance, future studies could observationally measure parent BMI, mindful feeding, and/or children's eating behaviors, especially given that other childhood feeding measures have been validated observationally (Fernandez et al., 2018). Lastly, given that mindful feeding is likely correlated with other constructs (e.g., parent stress), future studies should further examine the ways in which mindful feeding relates to other potential covariates.

Finally, our findings underscore the need to further explore how mindfulness is related to both overall parenting and to specific parenting practices. Although mindful feeding appears to have promising associations with emotional over-eating, food fussiness, and problematic mealtime behaviors, it should be studied in relation to other variables of interest, particularly other positive feeding practices. Previous research suggests that mindful parenting interventions can be successful in increasing mindful parenting (e.g., Coatsworth et al., 2018), and some research suggests that increasing mindful parenting can have benefits for children (although more research is clearly

needed; Townshend, Jordan, Stephenson, & Tsey, 2016). Thus, future feeding intervention studies should explore whether mindful feeding improves child eating behaviors, especially problematic mealtime behaviors. Specifically, clinicians and other nutrition professionals may target mindful feeding as a way to disrupt the relation between permissive and authoritarian parenting style and children's problematic eating behaviors.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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