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Maternal representations of their children in relation to feeding beliefs and practices among low-income mothers of young children

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ABSTRACT

Identifying maternal characteristics in relation to child feeding is important for addressing the current childhood obesity epidemic. The present study examines whether maternal representations of their children are associated with feeding beliefs and practices. Maternal representations refer to mothers' affective and cognitive perspectives regarding their children and their subjective experiences of their relationships with their children. This key maternal characteristic has not been examined in association with maternal feeding. Thus the purpose of the current study was to examine whether maternal representations of their children, reflected by Working Model of the Child Interview typologies (Balanced, Disengaged, or Distorted), were associated with maternal feeding beliefs (Authority, Confidence, and Investment) and practices (Pressure to Eat, Restriction, and Monitoring) among low-income mothers of young children, with maternal education examined as a covariate. Results showed that Balanced mothers were most likely to demonstrate high authority, Distorted mothers were least likely to demonstrate confidence, and Disengaged mothers were least likely to demonstrate investment in child feeding. Moreover, Balanced mothers were least likely to pressure their children to eat. Findings are discussed with regard to implications for the study of childhood obesity and for applied preventions.
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1. Introduction

Maternal feeding beliefs and practices, such as authority, indulgence, restriction, and pressure, play important roles in children's eating behaviors and weight outcomes (Frankel et al., 2014; Mitchell, Farrow, Haycraft, & Meyer, 2013; Powell, Farrow, & Meyer, 2011). Although a substantial body of research has examined links between maternal feeding and child eating and weight outcomes, a recent systematic review found relatively few studies investigating characteristics of the mother that predict maternal feeding (McPhie, Skouteris, Daniels, & Jansen, 2014). Identification of mother characteristics that are associated with specific feeding beliefs and practices would inform the development of more effective preventive interventions tailored to these characteristics.

A key maternal characteristic that has not been examined in association with maternal feeding is maternal representations (or "internal working models") of their children. Research on internal working models is informed by decades of work demonstrating that parents' representations of their own experiences growing up in their families of origin, assessed via the Adult Attachment Interview (AAI; George, Kaplan, & Main, 1985), are associated with parenting and child outcomes including attachment security (see meta-analysis by van IJzendoorn, 1995). Internal working models assessed via the AAI reflect the adult individuals' "current state of mind" with regards to early experience, that is, rather than assess whether early life experiences were positive or negative, the AAI classifies how integrated and coherent an individuals' narrative is when currently describing these experiences (Main, Kaplan, & Cassidy, 1985). Similar to the AAI, maternal representations refer

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to mothers' affective and cognitive perspectives regarding their children and their subjective experiences of their relationships with their children (Zeanah & Benoit, 1995). These representations are presumed to function as templates through which mothers interpret children's behavior, and thereby shape caregiving responses (Rosenblum, Dayton, & McDonough, 2006; Sokolowski, Hans, Bernstein, & Cox, 2007) and associate with quality of mother–child interactions as well as parenting warmth, sensitivity, intrusiveness, control, negativity and hostility (Korja et al., 2010; Rosenblum, McDonough, Muzik, Miller, & Sameroff, 2002; Schechter et al., 2008). These representations develop as early as the prenatal and infancy periods (Huth-Bocks, Theran, Levendosky, & Bogat, 2011; Theran, Levendosky, Bogat, & Huth-Bocks, 2005) and though relatively stable (Moss, Cyr, Bureau, Tarabulsy, & Dubois-Comtois, 2005), are also somewhat open to revision (e.g., Aber, Belsky, Slade, & Crnic, 1999).

Maternal representations of their children are assessed via the well-validated representational interview, the "Working Model of the Child Interview" (WMCI; Rosenblum et al., 2002; Vreeswijk, Maas, & van Bakel, 2012; Zeanah & Benoit, 1995), a semi-structured interview designed to capture mothers' perceptions and subjective experience of their child's personality and relationship with their child. Consistent with classifying narrative responses into three main typology categories on the AAI, the coding of maternal responses yields three main WMCI typologies (Table 1, Rosenblum et al., 2006): Balanced, Disengaged, and Distorted. These typologies distinguish clinical from nonclinical samples of children (Borghini et al., 2006) and mothers (Korja, et al., 2010; Rosenblum et al., 2002) and relate to sensitive parenting behavior (Dayton, Levendosky, Davidson, & Bogat, 2010; Schechter et al., 2008; Sokolowski et al., 2007).

WMCI typologies are associated with failure to thrive (Coolbear & Benoit, 1999) as well as sleep and developmental and regulatory risks in infancy (Benoit, Parker, & Zeanah, 1997). We have been unable to identify any studies that have examined WMCI typologies in relation to maternal feeding beliefs and practices. A related construct, "mind-mindedness," has been related to maternal feeding in infancy. Specifically, Farrow and Blissett (2014) demonstrated that mothers' use of language that reflects an appreciation of the child "as a mental agent" (that is "mind-minded" terms that, for example, reflect that the child may be thinking or feeling) is related to general parenting sensitivity and positive feeding behaviors. While both the WMCI and the mind-mindedness coding involve narrative-based assessments and capture aspects of maternal understanding of the child as a separate, thinking/feeling individual, the current study using the WMCI extends this prior work in several ways, by: (1) assessing broader representational typologies, which have been suggested to reflect broader organizational constructs that may underlie an individual's capacity to engage in mind-minded comments and sensitive behavior, and (2) by examining these associations among caregivers of older, preschool-aged children.

Thus, the present study sought to test the hypothesis that maternal representations of their children, reflected by WMCI typologies, are associated with maternal feeding beliefs and practices among low-income families of young children. Specifically, we hypothesized that mothers with Balanced representations of their children would report a high level of authority and confidence in feeding their children, be deeply invested in child feeding; and be less controlling in their feeding (i.e., exhibit less pressure to eat or restriction of eating). We hypothesized that Disengaged mothers would report high authority and confidence, yet given a tendency towards emotional distancing, they were expected to be less deeply invested in child feeding. Finally, given a tendency for Distorted mothers to have narratives that reflect feelings of being emotionally overwhelmed, we hypothesized that Distorted mothers would report low authority and confidence, yet deep investment, in child feeding.

2. Method

2.1. Participants and recruitment

Participants included 295 caregivers (M = 31.02 years; SD = 7.06; 67% non-Hispanic white; 45% single parent) and their young children (M = 5.39 years; SD = 0.75; range = 4–8 years; 153 males) recruited from Head Start, a free, federally-subsidized preschool program for low-income children, in Southeastern Michigan. Participants were drawn from a longitudinal cohort study examining stress and eating in children between 2009 and 2011. Children in the longitudinal cohort were enrolled in Head Start programs at the time of recruitment into the original study; their primary caregivers were later contacted by phone and invited to participate in this follow-up study on child feeding. Inclusion criteria for the original study as well as this follow up study were that caregiver and child were fluent in English; caregiver had an education less than a 4-year college degree; child was born at 35 weeks gestation or more without significant perinatal or neonatal complications; child had no significant developmental disabilities, serious medical problems, history of food allergies, or any form of disordered eating; and child was not in foster care. In this sample, 95% of the primary caregivers were biological mothers and the remaining 5% were adoptive mothers, stepmothers, and grandmothers; thus, the entire sample was referred as "mothers". All mothers provided written informed consent and received $150 as a compensation for their participation. This study was approved by the University of Michigan Institutional Review Board.

2.2. Procedure

Interviews were conducted by trained research assistants; children were not present during the interviews. All research assistants were certified in reliable interview administration through

Table 1
Descriptions of the three standard WMCI representational typologies (see Rosenblum et al., 2006).

Typology	Description
Balanced	Balanced representations were characterized by emotional warmth, acceptance and responsiveness to the child's needs, narrative coherence and richly detailed descriptions. Although mothers in this category may have expressed feelings of challenge or difficulty in parenting, such concerns did not overwhelm or dominate their perceptions of their children. *Characteristic of the emotion/cognition regulation style in this category was an ability to access a range of emotions, without a need to minimize or be overwhelmed by feelings regarding their children and parenting.*
Disengaged	Disengaged representations were characterized by an emotional distance from the child. Mothers in this category often had less to say and were likely to describe their children in a manner that minimized affective involvement, revealing a tendency to distance, reject and/or fail to acknowledge their children's emotional and dependency needs. *Characteristic of the emotion/cognition regulation style in this category was an emotion-deactivating style.*
Distorted	Distorted representations were characterized broadly by a tendency to heighten affect and a poorly organized, low-coherence narrative. Mothers in this category often appeared confused or unsure about their relationship with their children, and/or anxiously overwhelmed by their children's perceived needs and experiences. Some were distracted by other concerns, self-involved, or role reversed in their relationships with their children, describing their young children as "buddies" or "confidants.". *Characteristic of the emotion regulation among mothers in this category was an emotion-overactivating style.*

a series of trainings administered by a doctoral level research psychologist who is experienced in the administration and interpretation of similar interviews for research purposes. All research assistants were highly trained to avoid giving positive, negative, or leading reactions to the mothers' responses during the interviews, and fidelity was monitored on an ongoing basis. Interviews were audiotaped and verbatim transcripts were obtained from these recordings; transcribers received extensive training and supervision to ensure adequacy of the transcriptions. Two different coding teams independently rated the two interviews; all rating was done from the written transcripts. Given the prevalence of low literacy within the participating population, questionnaires were administered orally by the trained research assistants to the mothers. Research assistants were highly trained in the study protocol implementation and questionnaire administration, leaving little variability across research assistants.

2.3. Measures

2.3.1. Predictor: maternal representations of the child

Each mother participated in an abbreviated version of the Working Model of the Child Interview (Zeanah & Benoit, 1995; examples of open-ended questions are presented in Table 2). For this study, certain questions were abbreviated (i.e., we only asked for three, instead of five, descriptive words or phrases to describe the child's personality and the parents relationship with the child) and others were omitted (i.e., questions regarding experiences of pregnancy and early development as well as those regarding parent response to child hurt, upset, and illness). An abbreviated WMCI has been demonstrated to be reliable and valid among samples that are diverse in terms of sociodemographic characteristics and mental health status (Rosenblum, McDonough, Sameroff, & Muzik, 2008; Rosenblum et al., 2006). Each narrative was assigned to one of the three standard WMCI typologies: Balanced, Disengaged, or Distorted (Zeanah & Benoit, 1995). One narrative was considered uncodable due to mild limitations in fluent spoken English that might invalidate the coding scheme. Coders of the transcripts were a graduate student and postdoctoral fellow; they were trained to reliability in coding by the senior author, a trained and reliable WMCI coder (Rosenblum et al., 2002). For the present study 15% ($n = 44$) of the transcripts were double coded in order to assess inter-rater reliability. In order to monitor potential rater drift transcripts were assigned intermittently for double coding across the coding period; raters were blind to the double-coded set. Exact agreement for WMCI classification was achieved for 84% of the reliability transcripts (kappa = 0.76, $p < .001$), indicating excellent agreement; disagreements were resolved by consensus.

Table 2
Examples of open-ended interview questions.

Sample questions from the abbreviated Working Model of the Child Interview (see Rosenblum et al., 2006)
Can you give me three words or phrases to describe [child name]'s personality?
Can you tell me a favorite story about [child name]?
What do you think is unique or different about [child name]?
Who does your child remind you of?
What is most difficult about [child name]'s behavior right now for you to handle?
What do you feel like doing when this occurs?
And how do you feel when your child reacts this way?
What do you actually do?
Why do you think s/he does it?
How do you think your relationship with [child name] has affected his/her personality?
Sample questions from the maternal feeding beliefs interview (see Pesch et al., 2011)
How do people in your house usually eat their meals on a typical day?
Can you describe yesterday's dinner?
How do you know if [child name] is growing appropriately?
Do you ever worry that [child name] doesn't or might not eat enough?
Do you ever worry that [child name] does or might eat too much?
Do you every worry about the kinds of foods [child name] eats?
How were you fed when you were growing up?
In your opinion, what causes a child to be overweight?
Can you help me brainstorm some things parents can do to keep their children from becoming overweight?
What advice do you have for other parents about how to best feed their kids?

2.3.2. Outcome: feeding beliefs derived from interview

Each mother also participated in a semistructured interview designed to elicit maternal narratives specifically about feeding (Goulding et al., 2014; Pesch, Harrell, Kaciroti, Rosenblum, & Lumeng, 2011; examples of open-ended questions are presented in Table 2). Each narrative was coded for each of the three child feeding beliefs: Authority, Investment, and Confidence, using a coding scheme developed and validated in prior work (Goulding et al., 2014; Pesch et al., 2011; the coding scheme is presented in Table 3). Two narratives were considered uncodable due to mild limitations in fluent spoken English that might invalidate the coding scheme. Twenty percent of the interviews were coded by two raters and inter-rater reliability was acceptable for all three codes with Cohen's κ 0.72, 0.69, and 0.89, respectively.

2.3.3. Outcome: feeding practices assessed via questionnaires

The 31-item Child Feeding Questionnaire (CFQ; Birch et al., 2001), which has high internal consistency reliability and construct validity (Anderson, Hughes, Fisher, & Nicklas, 2005; Birch et al., 2001) was administered. Three subscales were examined: Restriction represents the extent to which mothers limit their children's intake of foods (e.g., "I intentionally keep some foods out of my child's reach"; eight items; $\alpha = .75$); Pressure to Eat represents the degree to which mothers ensure their children to eat enough food, typically at mealtimes (e.g., "my child should always eat all the food on the plate"; four items; $\alpha = .62$); and Monitoring represents the extent to which mothers keep track of their children's intake of sweets, snack foods, and high fat foods (e.g., "how much do you keep track of the high-fat foods that your child eats"; three items; $\alpha = .87$).

2.3.4. Covariate

In order to account for the possibility that differences across mothers' narratives may reflect corresponding differences in level of education and verbal fluency (Rosenblum et al., 2008), maternal educational level was included as a covariate. A dichotomous education level variable was created to distinguish the 48% of mothers with less than or equal to a high school diploma and the 52% who had completed at least some college courses.

2.4. Statistical analyses

All analyses were performed using SAS 9.3. Maternal representation of the child was assessed as a three-category, nominal independent variable (Balanced vs. Disengaged vs. Distorted). Interview-derived feeding beliefs such as Authority (high vs. low) and Confidence (confident vs. not confident) were assessed as binary dependent variables, whereas Investment (deeply, mildly, or removed) was assessed as an ordinal dependent variable. Given the binary nature of Authority and Confidence, adjusted logistic regression analyses were conducted to examine whether maternal representation of the child was associated with the feeding beliefs of Authority and Confidence, above and beyond educational level.

Table 3
Coding scheme categorizing feeding beliefs in terms of authority, confidence, and investment (Pesch et al., 2011).

Authority	
High authority	Mother sets limits and structure for food and mealtime. She guides her child's food choices and eating decisions pertaining to what, when, where, or how much is consumed. The mother is clearly in control and purposefully sets the agenda for feeding her child.
Low authority	Mother sets few or no expectations or rules surrounding feeding her child. She allows the child to drive decisions about what, when, where, or how much is consumed. Her manner may range from indulgent/loving to harsh/neglectful, but the key point is that the child sets the agenda for feeding.
Confidence	
Confident	Mother does not question her decisions about how she chooses to feed her child, and is confident that her child is eating properly. She may have a few doubts, but they do not overwhelm her strong feelings that she is doing the right thing and correctly addressing any child feeding challenges.
Not confident	Mother has doubts and is unsure about how she feed her child. She may be confident in some aspects of feeding, but overall questions whether her child is being fed properly. She may express worry, uncertainty, or concern about how she is handling difficult child feeding situations.
Investment	
Deeply	There is a sense that love and concern is expressed through the mother's feeding belief. She speaks passionately and has invested significant cognitive energy in feeding as demonstrated by expression of complex thoughts about feeding her child.
Mildly	Mother has given some thought to feeding her child, but she does not speak passionately and her interview is not characterized by significant affect. She may have a few complex thoughts about feeding, but lacks fervor and enthusiasm when describing her feeding belief.
Removed	Mother is relatively indifferent to child's eating habits. She is unconcerned and shares limited thoughts related to feeding. She may present as neglectful, or may simply appear unconcerned about child feeding.

Given the three-category, ordinal nature of Investment, a proportional-odds cumulative logistic regression analysis was conducted to examine whether maternal representation of the child was associated with the feeding belief of Investment, above and beyond educational level. Moreover, three questionnaire-assessed feeding practices including Restriction, Pressure to Eat, and Monitoring were examined as continuous dependent variables. Thus, ANCOVAs were conducted to examine whether maternal representation of the child was associated with these five feeding practices, controlling for educational level.

3. Results

Frequency statistics of the three feeding beliefs in the entire sample and across the three WMCI typologies are presented in Table 4. Results of the logistic regression models examining each of the WMCI typologies in relation to feeding beliefs are reported in Table 5. Balanced mothers were most likely to report high authority in child feeding such that Balanced mothers were 5.12 times more likely than Disengaged mothers, and 4.91 times more likely than Distorted mothers to report high authority in child feeding. Moreover, Distorted mothers were least likely to report confidence in child feeding such that Balanced mothers were 2.76 times, and Disengaged mothers were 2.14 times more likely than Distorted mothers to report confidence in child feeding. Disengaged mothers were least likely to report investment in child feeding such that Balanced mothers were 6.23 times, and Distorted mothers were 5.00 times more likely than Disengaged mothers to report investment in child feeding. In terms of feeding practices assessed via the CFQ, ANCOVAs revealed differences only for Pressure to Eat. Balanced mothers were least likely to pressure their children to eat, compared with Distorted and Disengaged mothers (see Table 6).

4. Discussion

This study contributed several new findings to the literature. First, mothers with Balanced representations of their children demonstrated more authority in their feeding beliefs. Second, mothers with Distorted representations of their children demonstrated less confidence in their feeding beliefs. Third, mothers with Disengaged representations of their children demonstrated the least investment in their feeding beliefs. Fourth, mothers with Balanced representations of their children reported the least pressuring of their children to eat.

Mothers with Balanced representations have been described as being emotionally warm and accepting of their children, responding sensitively to their children's needs, considering challenges in parenting to be expectable and manageable, and conveying involvement and delight in their relationships with their children (e.g., Dayton et al., 2010; Korja et al., 2010; Rosenblum et al., 2006). Consistent with this prior work, in the present sample, mothers with Balanced representations were most likely to report high authority in their beliefs about child feeding, setting structure and guiding their children's feeding. These mothers were also more likely to have confidence in their feeding and ability to address any child feeding challenges and invest significantly in feeding their children. Correspondingly, these mothers were least likely to endorse controlling feeding practices such as using pressure in feeding their children. Prior work regarding Distorted representations suggests that parents in this category tend to display heightened emotionality in regard to their children, and to experience confusion or uncertainty about their relationships with their children, at times appearing to become anxious or overwhelmed by their children's perceived needs (e.g., Korja et al., 2010; Rosenblum et al., 2006). Thus, it is not surprising that mothers in this category were the least likely to manifest confidence regarding feeding their children or in handling challenges that may arise in that context. In contrast, mothers with Disengaged representations tend to maintain an emotional distance from their children and are more likely to fail to acknowledge their children's needs (e.g., Rosenblum et al., 2002; Sokolowski et al., 2007). The emotional aloofness apparent in Disengaged representations also appeared to manifest as reduced investment in their children's feeding.

Differences observed were not simply evident in the contrast between Balanced and non-Balanced typologies, but also between

Table 4
Frequency statistics of interview-derived feeding beliefs in the entire sample and across the three typologies of maternal representation of the child.

	Total	Balanced	Disengaged	Distorted
	n = 295	n = 110	n = 88	n = 96
Authority				
High	223	100	58	65
Low	70	10	29	31
Confidence				
Confident	229	92	72	65
Unconfident	65	18	16	31
Investment				
Deeply	90	44	7	39
Mildly	143	58	44	41
Removed	63	8	36	19

Table 5
Logistic regression models examining interview-derived feeding beliefs in relation to maternal representation of the child, controlling for education level.

	Odds ratios [95% confidence intervals]		
	High vs. Low authority	Confident vs. Unconfident	Invested vs. Not invested
Balanced vs. Disengaged	5.12 [2.30, 11.39]***	1.29 [0.60, 2.76]	6.23 [3.44, 11.28]***
Balanced vs. Distorted	4.91 [2.22, 10.87]***	2.76 [1.38, 5.52]**	1.22 [0.71, 2.09]
Disengaged vs. Distorted	0.96 [0.52, 1.78]	2.14 [1.07, 4.29]*	0.20 [0.11, 0.36]***

*$p < .05$.
**$p < .01$.
***$p < .001$.

Table 6
Differences in questionnaire-assessed feeding practices across the three typologies of maternal representation of the child, controlling for educational level.

Feeding practices				Three typologies of maternal representation of the child					
	ANCOVA			Balanced		Disengaged		Distorted	
	df_{BG}	df_{WG}	F	M	SD	M	SD	M	SD
CFQ Restriction	3	288	0.63	3.23[a]	(0.35)	3.36[a]	(0.38)	3.36[a]	(0.37)
CFQ Pressure to eat	3	289	6.47**	2.45[b]	(0.38)	2.96[a]	(0.42)	2.81[a]	(0.41)
CFQ Monitoring	3	289	0.43	4.08[a]	(0.39)	3.95[a]	(0.43)	4.01[a]	(0.41)

Note. Means sharing the same superscript are not significantly different from each other (pairwise comparison, $p < .05$).
**$p < .01$.

Disengaged and Distorted representations. Feelings of being overwhelmed often characterize Distorted representations, and in the present study these representations were linked to a higher prevalence of low confidence in child feeding. On the other hand, a pervasive sense of emotional distance from the child often characterizes Disengaged representations, and these representations were associated with a higher prevalence of low investment in child feeding.

Maternal representations of their children were not significantly associated with their feeding practices of restriction and monitoring. The CFQ Restriction and Monitoring subscales focus on limiting or keeping track of children's intake of sweet, high-fat foods exclusively. Given that indulging children with unlimited palatable foods tends to be negatively viewed, mothers might be inclined to report having restricted and/or monitored their children's consumption of palatable foods when they were presented with these questionnaire items, regardless of their representation of their children. In contrast, the use of an interview that is designed to elicit maternal narratives about feeding addresses the limitations of the questionnaire approach by asking mothers to actively consider their thoughts, feelings, and experiences about feeding rather than limiting mothers to specific feeding content (Pesch et al., 2011). The use of the interview thus may have served as a more in-depth assessment of maternal thinking and feeling about feeding their children, which were different between mothers with different representations of their children.

Our current findings extend prior work by demonstrating an association between a unique parent characteristic, that is, mothers' representations of their children assessed via the WMCI, and feeding beliefs and behaviors. Considering representations as a parenting construct can further inform our understanding of parenting as it relates to feeding beyond parenting style, which is typically measured via questionnaire assessing self-reported parenting behaviors reflecting dimensions of warmth and control (Vollmer & Mobley, 2013). Parent WMCI-derived representations, in contrast, are measured via a qualitative assessment of parental narrative and discourse features that are presumed to reflect the underlying organization of parental cognition and affect around parenting their young children. While we are unaware of any published papers directly assessing linkages between WMCI typologies and Baumrind-type parenting style assessments, we assume based on the literature that links both parenting style and WMCI typologies to parenting sensitivity that these two constructs are likely related. Yet, we also believe that there are likely several distinctions that make these constructs unique, including: (1) parenting style often involves assessment of typical parenting behaviors and responses, whereas typologies tap into indicators of the parents' relationship with a particular child; (2) parenting style assessments tend to focus on Baumrind-informed dimensions of warmth and control, whereas WMCI typologies assess processes related to the parents' capacity to mentalize the child (i.e., attribute mental states to the child) as well as thought and emotion processes related to parenting that is specific to the child; and (3) typologies can be identified very early in the child's development — in some studies as early as when the mother is pregnant (Huth-Bocks et al., 2011) — and early assessments of mothers' representations of the specific child are associated with later parenting and child outcomes, suggesting potential for early preventive intervention efforts.

4.1. Limitations, future directions, and implications

These findings should be interpreted in light of the limitations of the present study. The present study is correlational in nature and thus does not permit causal conclusions regarding the role of maternal representation for mothers' feeding beliefs and practices. Future longitudinal research on this topic is necessary. Moreover, there may be common method bias because both WMCI classifications and maternal feeding were derived from interviews. Further, observed linkages between WMCI classifications and maternal feeding may be driven by other unmeasured confounding variables (e.g., child individual characteristics) that may affect maternal representations of their children as well as feeding beliefs and practices (Vreeswijk et al., 2012). While strength of this study is the focus on a low-income sample recruited from the Head Start population, generalization of the present findings to families with varying sociodemographic characteristics should be made with caution. Moreover, only self-report was used to measure feeding practices in this study. Future observational work could increase the ecological validity of maternal reports of feeding practices.

Despite these limitations, the present study represented a significant step towards understanding maternal representations of

the child in relation to maternal feeding beliefs and practices among low-income families. Findings of the present study have a number of implications. Maternal internal working models of their children emerge very early in development and can be identified during pregnancy and at birth (Huth-Bocks et al., 2011; Theran et al., 2005), and there is a growing body of evidence that maternal internal working models may shape caregiving behaviors and responses at later stages of development. Furthermore, interventions to promote positive early parenting in high-risk samples can improve key features of maternal representations (Muzik et al., 2015). Consistent with current research priorities for identifying effective strategies for early obesity prevention that might be implemented during infancy and early childhood, associations obtained in the present study suggest that early preventive interventions to enhance qualities of maternal representation may be an appropriate target in order to enhance confidence and authority not only in general parenting, but in feeding beliefs and practices, which may reduce later controlling behaviors and potentially obesity-promoting feeding beliefs among low-income populations. Crawford and Benoit, 2009.

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