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# Providers perspectives on self-regulation impact their use of responsive feeding practices in child care

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ABSTRACT

Supporting children's self-regulation in eating through caregivers' practice of responsive feeding is paramount to obesity prevention, and while much attention has been given to supporting children's self-regulation in eating through parents' responsive feeding practices in the home setting, little attention has been given to this issue in childcare settings. This qualitative study examines childcare providers' perspectives on using responsive feeding practices with young children (2–5years). Individual semi-structured interviews were conducted with providers until saturation was reached. Data was analyzed using thematic analysis. The final sample included 18 providers who were employed full-time in Head Start or state-licensed center-based childcare programs, cared for children (2-5y), and were directly responsible for serving meals and snacks. Providers were primarily (67%) employed in childcare programs that served children from low-income families and received reimbursement for meals and snacks from the US Department of Agriculture's Child and Adult Care Food Program. Three factors emerged that shaped childcare providers' experiences using responsive feeding practices: *the providers' perspectives about whether or not young children can self-regulate food intake*, *their understanding of Child and Adult Care Food Program (CACFP) portion size regulations*, and *the availability of food at the center where they worked.* Future research should examine how childcare providers' understanding of children's ability to self-regulate their food intake, the appropriate use of the CACFP regulations in relationship to serving sizes, and having food available to offer seconds promotes providers' use of responsive feeding practices in center-based childcare programs and children's dietary behaviors.



## 1. Introduction

The prevalence of childhood obesity is a global concern (Ogden, Carroll, Kit, & Flegal, 2014). As a result, much attention is given to childhood obesity prevention (Barlow, 2007), and early childhood is recognized as a pivotal time to establish healthy behaviors (Miller et al., 2012). One target for obesity prevention efforts is children's self-regulation of energy intake (French, Epstein, Jeffery, Blundell, & Wardle, 2012) and more specifically, how caregiver responsive feeding practices can support children's self-regulation of energy intake (Institute of Medicine (IOM), 2011). Responsive feeding practices include reinforcing and respecting children's internal signals of hunger and satiety to support children's self-regulation of energy intake (Benjamin Neelon & Briley, 2011).

Self-regulation of energy intake refers to the ability to recognize and eat (or not eat) in response to internal feelings of hunger and fullness (Johnson, 2000). Typically, children are born with the natural ability to self-regulate their energy intake (Fomon, 1974, p. 28; Fox, Devaney, Reidy, Razafindrakoto, & Ziegler, 2006). For

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example, infants who are given a low caloric formula consume more than infants who are given a high caloric formula to compensate for the caloric deficit in the formula (Fomon, 1974, p. 28). The ability to recognize hunger and fullness can continue throughout early childhood. (L. L. Birch, Johnson, Andresen, Schulte, & Peters, 1991), and caregivers responsive feeding practices can support this ability (Frankel et al., 2014; Johnson, 2000). Specifically, when children are consistently offered larger portions sizes by adults without cues to their internal signals of hunger and fullness, they are likely to consume more calories (Frankel et al., 2014). However, when children are allowed to serve themselves and are given appropriate verbal encouragement, they are more likely to respond to their internal cues (Birch et al., 1987; Ramsay et al., 2010) which can result in less food intake (Fisher, Rolls, & Birch, 2003). Therefore, responsive feeding practices are responsive to children's cues of hunger and fullness and support children's self-regulation in eating.

Conversely, a non-responsive feeding approach or controlling feeding practices have been linked to overriding children's internal cues of hunger and fullness, decreased self-regulation in eating, overeating, and childhood obesity (Sellers, Russo, Baker, & Dennison, 2005). Adults who use controlling feeding practices through force or restriction of children's eating can disrupt self-regulation in eating (L. L. Birch, McPheee, Shoba, Steinberg, & Krehbiel, 1987) and is related to increased food refusal (Fries, Martin, & van der Horst, 2017). Other feeding practices such as rewarding with food and children being required to clean their plates can disrupt self-regulation in eating as well (L. L. Birch & Fisher, 1998; Branen, Fletcher, & Myers, 1997; Orrell-Valente et al., 2007). While well-intentioned caregivers may use these feeding practices to promote a more balanced diet or to make sure a child is eating enough, these controlling practices may lead to fussy or emotional eating. Therefore, controlling feeding practices are non-responsive to children's internal cues of hunger and fullness and hamper children's ability to self-regulate their food intake.

The attention to children's ability to self-regulate food intake as a factor in childhood obesity prevention is founded in the evidence from cross-sectional and observational data identifying an association between satiety responsiveness and body mass index (Carnell & Wardle, 2008; Francis & Susman, 2009; Shunk & Birch, 2004; Tan & Holub, 2015). In other words, a diminished ability to self-regulate energy intake can put a child at higher risk for overweight. Ensuring that caregiver feeding practices support children's self-regulation of energy intake through the use of responsive feeding is an opportunity to address childhood obesity (Johnson, 2000).

Supporting children's self-regulation in eating is paramount to obesity prevention, (Carnell & Wardle, 2008; Francis & Susman, 2009; Shunk & Birch, 2004; Tan & Holub, 2015) and while much attention has been given to supporting self-regulation in eating in the home setting, less research has been conducted in childcare settings (Larson, Ward, Neelon, & Story, 2011). In the US, more than 12 million children attend childcare and consume up to 5 meals and snacks daily in such settings. (Kaphingst & Story, 2009; Larson et al., 2011; Ward, Vaughn, & Story, 2013). Therefore, childcare providers can shape children's dietary behaviors and prevent childhood obesity. Some evidence suggests that childcare providers' mealtime feeding practices are highly associated with children's dietary intake (Gubbels et al., 2010).

Drawing from the evidence linking children's self-regulation in eating and weight, early childhood obesity prevention policies recommend childcare providers practice responsive feeding to support children's self-regulation in eating as a means to prevent obesity. The IOM recommends that state childcare regulatory agencies require childcare providers to practice responsive feeding for toddlers and preschoolers (2-5y) — by allowing children to determine how much they eat, and reinforcing children's internal cues of hunger and fullness (Institute of Medicine (IOM), 2011). Similarly, the Position Statement released by the *Academy of Nutrition and Dietetics* (Academy) regarding benchmarks for nutrition in childcare specifically recommends that childcare providers caring for young children (2-5y) should cue children to pay attention to their internal feelings of hunger and fullness and respect these feelings, once expressed (Benjamin Neelon & Briley, 2011).

Even though early childhood obesity prevention policies promote responsive feeding in childcare (Institute of Medicine (IOM), 2011; Benjamin Neelon & Briley, 2011), the implementation of responsive feeding practices may not occur. In particular, non-responsive verbal strategies identified in the literature include: (1) cueing children to amounts of food without referencing children's internal cues; (2) asking children if they wanted more food without referencing their internal cues; (3) asking children if they were finished eating without referencing their internal cues; (4) telling children to take, try, eat, or finish food; and (5) praising children for eating. Examples of praising statements included: "Let's see you make a happy plate." [clean plate], "We are good eaters, [child's name] and I like the way she eats; she eats all her [food]" (Dev, McBride, Fiese, Jones, & Cho, on behalf of the STRONG Kids Research Team, 2013; Dev, McBride, Speirs, Donovan, & Cho, 2014a; Dev, Speirs, McBride, Donovan, & Chapman-Novakofski, 2014b; Ramsay et al., 2010). The overall theme identified was an overriding non-responsive feeding approach to get children to eat. Similarly, in the primary quantitative study examining providers' verbal communication during meal times, results revealed that providers from all of the childcare contexts examined in the study (Head Start, Child and Adult Care Food Program-funded (CACFP) and non-CACFP funded) tended to use significantly more non-responsive comments than responsive comments with children. (Dev et al., 2013). The present follow-up (secondary) qualitative study aimed to provide insight on the disconnect between recommendations and childcare providers' use of responsive feeding in childcare, by exploring providers' perspectives regarding such practices. Using the Academy's recommendations for responsive feeding as a framework (Benjamin Neelon & Briley, 2011), the purpose of this study was to identify childcare providers' perceptions regarding their use of responsive feeding practices with young children (2-5y) in their care. In particular, this study explored childcare providers' perceptions on why they thought responsive feeding was important (or not important) and what factors allowed or prevented them from using the Academy's benchmarks for responsive feeding with young children.

## 2. Method

### 2.1. Research design

To explore providers' perspectives regarding their use of responsive feeding practices, researchers conducted in-depth, face-to-face, individual semi-structured qualitative interviews with childcare providers. Thematic analysis was used to analyze the data. The study was designed and executed by researchers with expertise in nutrition, child development, public health, early care and education, and qualitative research methods. The University of Illinois, Urbana-Champaign Institutional Review Board approved the study for research involving human subjects.

### 2.2. Sampling and recruitment

In 2012, 118 providers from 24 licensed childcare centers in central Illinois completed a survey as part of a primary quantitative