

EXPLORATION OF MEALTIME PRACTICES AND POLICIES AMONG NORTH CAROLINA HEAD START ORGANIZATIONS: DOES PRACTICE REFLECT POLICY?

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ABSTRACT

Purpose/Objectives

Early childhood educators (ECEs) are encouraged to utilize supportive feeding practices (SFPs) to promote children's healthy eating. SFPs include sitting with children during mealtimes, role modeling healthy eating behaviors, encouraging children to try new foods, and addressing children's hunger cues. Although Head Start policies generally promote SFPs, recent revisions to federal standards removed the family-style meal service requirement, a key strategy for implementing SFPs. The purpose of this study was to explore current mealtime-related practices and policies being implemented in Head Start centers across North Carolina (NC) and alignment with SFPs.

Methods

A cross-sectional study design was used to collect data about mealtime policies, including those that support SFPs, from NC-based Head Start programs February-October 2017. A total of 24 Health/Nutrition Coordinators representing as many Head Start programs participated in the study due to their role in overseeing food and nutrition standards. Responses were measured using an online survey.

Results

The final sample of 24 Health/Nutrition Coordinators represented as many Head Start programs. Coordinators reported ECEs generally follow SFPs and policies at mealtimes with 62.5-100% of programs following seven of the nine SFPs surveyed. All programs reported implementing family-style meal service, however, findings highlighted some programs used practices that did not align with family-style meal service recommendations (e.g. not helping children listen to hunger and satiety cues). Educators' personal food preferences and limited self-efficacy for handling children's negative preferences toward healthy food were cited as barriers to encouraging healthy eating in the mealtime environment.

Applications to Child Nutrition Professionals

Future research is needed to understand best strategies for providing Head Start staff with education and training related to implementation of family-style meal service and SFPs, with an emphasis on approaches for teaching children about self-regulation. School nutrition and health professionals may represent an important resource for Head Start programs.

Key words: Head Start; feeding practices; child nutrition; preschool

INTRODUCTION

Families are primarily responsible for helping children establish positive health behaviors; however, many preschool-aged children (3-5 years) also spend a substantial amount of time in child care facilities making this environment ideal for implementing obesity prevention practices (Story, Kaphingst, & French, 2006). Head Start is a federally funded preschool program and is considered a leader in promoting healthy eating for young children in early childcare settings (Benjamin-Neelon, 2018). Head Start programs serve more than 1 million children and families across the United States every year (Office of Head Start, 2019a). Exploring feeding practices among Head Start programs is important given they primarily serve children with low-income minority backgrounds and those at increased risk for childhood obesity (Benjamin-Neelon & Briley, 2011).

Head Start programs are guided by Program Performance Standards (PPS) which provide expectations related to children's cognitive, social, and physical development. Nutrition-related Performance Standards (§1302.44) currently require programs to implement developmentally appropriate child feeding practices, provide nutrition education, and healthy meals and snacks. As part of the PPS, Head Start programs are also required to participate in the Child and Adult Care Food Program (CACFP) or the National School Lunch Program (NSLP) and National School Breakfast Program to support the provision of healthy foods (Head Start Performance Standards; Final rule. Fed Regist. 2016).

Head Start educators are encouraged to promote healthy eating behaviors among children by utilizing supportive feeding practices (SFPs) (Erinosho, 2011; Lynch & Batal, 2011; Mita, Grey, & Goodell, 2015; Nicklas et al., 2013; Sigman-Grant et al., 2011). Prior to 2016, Head Start PPS specified that Early Childhood Educators (ECEs) should use developmentally appropriate SFPs such as: (1) family-style meal service, (2) not using food as a reward or punishment, (3) sitting with children and eating the same foods, and (4) not forcing children to finish their food (Battista et al., 2014; Office of Head Start, 2015). The CACFP provided ECEs with further encouragement for engaging in SFPs such as: (1) creating a pleasant eating environment, (2) allowing children to serve themselves, and (3) encouraging children to try new or less preferred foods (Ammerman et al., 2007; Battista et al., 2014; Hendy & Raudenbush, 2000; USDA Food and Nutrition Service, 2016).

As evidenced above, Head Start PPS have generally supported mealtime practices and policies aligned with SFPs, leaving some researchers to theorize that positive weight outcomes that have been observed among Head Start children may be due to these strategies (Lumeng et al., 2015; Sigman-Grant et al., 2011). In 2016, the PPS standards were revised. One major change impacting the food and nutrition education environment included removal of the family-style meal service requirement (i.e. ECEs sitting and eating meals with children while modeling healthy eating behaviors and allowing children to select and serve their own portions (Dev et al., 2014b)). Programs are provided with local autonomy when working to fulfill PPS (Hughes et al., 2010) which means individual Head Start programs can now choose whether or not to participate in family-style meal service based on the needs of their program (Head Start Performance Standards; Final rule. Fed Regist. 2016). The PPS still "encourages" programs to utilize the best-practice, however, the removal of the requirement is concerning because past research has demonstrated that in programs where family-style meal service is not required, there is significantly less likelihood of practice implementation (Dev, McBride, & The STRONG Kids Research Team, 2013) due to perceptions of food wastage, or that this supportive practice will require more time and create a mess (Dev et al., 2014b).

The use of family-style meal service is supported by the Academy of Nutrition & Dietetics (AND), the American Academy of Pediatrics (AAP), the American Public Health Association (APHA), and the Institute of Medicine (IOM) as a key strategy for implementing SFPs (Benjamin Neelon & Briley, 2011). In this type of service, ECEs and children sit together at the table during mealtime and consume the same foods; children are able to choose the types of food and the amount desired (USDA, Memo Code: CACFP 05-2017). Family-style meal service has been associated with children's increased willingness to try new foods, thus improving children's self-regulation skills (Dev et al., 2014; Kharofa, Kalkwarf, Khory, & Copeland, 2016; Lynch & Batal 2011; Mita et al., 2015) and improving ECEs' ability to role model healthy eating during mealtimes (Sigman-Grant et al., 2008).

Studies conducted prior to the 2016 PPS change indicated that Head Start programs with family-style meal service were more likely to implement SFPs and have policies in place to support these efforts, compared to programs that did not require this style of service (Dev et al., 2014). To the authors' knowledge, there are no published studies that report how mealtime practices and policy implementation (at local, state, and federal levels) in Head Start have changed since the practice of family-style meal service became optional under the 2016 PPS. Therefore, the purpose of this study was to explore current mealtime-related practices and policies being implemented in Head Start centers across North Carolina (NC), and their alignment with SFPs as supported by evidence-based research in childcare settings. The study also explored perceived barriers for ECE's encouraging healthy eating behaviors among young children, and program strategies for communicating and training ECEs on mealtime-related practices and policies.

METHODOLOGY

Research Design

Researchers used an exploratory, cross-sectional study design to distribute a self-administered online survey between February and October of 2017. East Carolina University's Institutional Review Board approved the study.

Sample, Recruitment, and Data Collection

Organizations funded to deliver Head Start programming within NC were identified through the national Head Start website (Office of Head Start, 2019a). The sampling frame consisted of 50 Head Start programs representing a total of 354 childcare centers. Migrant Head Start sites (n=2) were excluded from the sampling frame because these sites were only operational during summer months. Health/Nutrition Coordinators (also referred to as Coordinators) were recruited to serve as the primary representative of each participating Head Start program. Health/Nutrition Coordinators were defined as individuals who have an authoritative role over food and nutrition policies and practices within their respective school environment, including menu development, planning, purchasing, coordination, and preparation of well-balanced, nutritious meals and snacks for children in accordance with requirements of the CACFP (USDA, 2014). In addition to serving in this role, participants also had to be 18 years of age or older to be eligible to represent their Head Start program.

To recruit Head Start programs, researchers called each of the 50 programs directly and asked to speak with the Coordinator to explain the study and gauge interest. If the Coordinator was not available, the team members explained the study and requested the Coordinator's email from the receptionist. Once Coordinators' email addresses were obtained, personalized emails explaining the study and survey links were generated and sent to each Coordinator. A reminder email with the survey link was sent to all non-responders about two weeks after the initial email.

The survey was administered online using QUALTRICS survey software. Researchers then generated and distributed personalized survey links via email to all interested participants. The

email included a brief description of the study as well as a statement informing interested participants about the incentive they would receive following participation. Each participant received a \$20 Wal-Mart gift card after submitting the survey as compensation for their time, regardless of whether or not the participant had responded to all survey items. To ensure reliability of participants' responses to the questionnaire, introductory directions to the survey also emphasized the purpose of the survey was not to monitor the program's performance or compliance with local, state, or federal policy, but instead an opportunity for programs to identify their needs and barriers.

Instrument

The survey used in this study was a 71-item online questionnaire. Items were obtained from validated existing surveys (Whitaker et al., 2009; Derscheid et al., 2012; Ammerman et al., 2007) and published local, state, and federal policies (Carraway-Stage et al., 2014; Peterson et al., 2017; USDA, 2014). Specifically, questions related to mealtime practices were obtained primarily from Whitaker et al. (2009), and questions regarding policies were drawn from written federal policies related to mealtime (Head Start Performance Standards; Final rule. Fed Regist. 2016; USDA, 2015). Three research faculty with expertise in food and nutrition policies, child feeding practices in early childcare, and survey methodology reviewed the survey for content and face validity, and provided feedback for improvement. One Child Health Consultant previously employed as a Head Start Health/Nutrition Coordinator was also asked to complete the survey and provide feedback. Reviewers' recommendations included restructuring and rewording questions to improve clarity and readability.

The 71 items on the questionnaire were organized into four sections: background information about the individual completing the survey and their Head Start program (Section A - 22 items); food and nutrition education practices (Section B - 26 items); ECE training, knowledge and behavior related to food and nutrition education (Section C - 13 items); and policies and regulations related to food and nutrition (Section D - 15 items). Questions primarily asked Coordinators to "Mark One Response" from options listed, "Mark All That Apply", or write-in their response under "Other". Questions in Sections B-D asked about the classroom and mealtime learning environments. For this study, researchers analyzed items addressing characteristics of Health/Nutrition Coordinators (n=6 items), the represented Head Start programs (n=4 items), and the mealtime environment (n=17 items). Mealtime environment questions assessed ECE practices during mealtime (e.g. frequency of mealtime discussions, passing foods, ECEs behaviors), implementation of mealtime policies and/or regulations, barriers to serving and encouraging healthy foods during meals and snacks, and methods of communicating and providing training for staff related to practices and policies that apply to feeding children during meal and snack times.

Data Analysis

All data were analyzed using Statistical Package for Social Sciences software (SPSS 22.0). Quantitative data were analyzed using descriptive statistics; presented as means, standard deviations, and percentages. Reported mealtime practices and policies were aligned with the components of a supportive feeding environment: physical, social and established routines, developmental, and trust and self-regulation (Fletcher, Brannen, Price, & Matthews, 2005; Signman-Grant et al., 2008).

RESULTS & DISCUSSION

Participant & Head Start Program Characteristics

The final sample included 24 Health/Nutrition Coordinators, representing as many Head Start programs, yielding a 48% response rate. A response rate of approximately 50% is considered

adequate to reduce the likelihood of response bias (Creswell, 2015). The demographic characteristics of the sample are presented in Table 1. All participants were female with an average age of 48 (± 11.2) years and the majority identified themselves as White (n= 13, 54.2%). The majority of Coordinators had at least a 4-year degree or higher (75%, n=18). Degree types varied greatly with Nursing (n=6), Early Childhood (n=5), and Nutrition (n=4) degrees being the most common. Half of the participants reported they had been employed with their current Head Start organization for at least 10 years.

On average, programs served 370 (SD=261.54) children. The majority of programs hired cooks (50%, n=12) to prepare meals at the center or in a nearby facility (79.2%, n=19). The most frequently reported barriers to providing healthy meals and snacks were limited funding (45.8%, n=11), and a reported lack of control over the types of meals and snacks provided by the foodservice provider (29.2%, n=7). Coordinators also perceived ECEs' personal food preferences (37.5%, n=9) as being the largest barrier they faced when trying to encourage healthy food consumption among young children. ECEs' uncertainty for how to handle children's resistance to trying new foods (20.8%, n=5) and negative food preference toward healthy foods (20.8%, n=5) were also perceived to be major barriers.

Table 1. *Characteristics of Head Start Health/Nutrition Coordinators and Represented Head Start Programs (n=24)*

CHARACTERISTIC	n	%
Race		
White	13	54.2
Black or African American	6	25.0
Hispanic or Latino	1	4.2
Asian	1	4.2
American Indian or Alaskan Native	1	4.2
Not Reported	2	8.3
Education		
Some college or technical school (1-3 years)	6	25
College graduate (4 years or more)	12	50
Master's Degree	6	25
Length of Employment with Head Start		
Less than 5 years	5	25
5-9 years	6	25
10-14 years	4	16.7
15-19 years	3	12.5
20 or more years	5	20.8
Geographic Location		
Appalachia/Mountain Region	5	20.8
Piedmont (Central) Region	11	45.8
Coastal Plains Region	8	33.4
Provider of Meals		
Cooks who are hired directly by Head Start program	12	50
Foodservice program of a school, school district, or school food authority	11	45.8
Outside food service company	1	4.2
Type of Meal Delivery		
Meals are prepared at the center or in a facility that is adjacent to the center	19	79.2
Meals are prepared away from the center and are delivered to the center	5	20.8

CHARACTERISTIC	n	%
Barriers Programs Face When Trying to Provide Healthier Meals/Snacks		
Not enough money to cover the costs of serving healthier meals and snacks ^a	11	45.8
Lack of control over the types of meals and snacks that are delivered to us by our food service provider	7	29.2
Those preparing meals and snacks would lack the knowledge to prepare healthier foods and beverages	4	16.7
Those preparing meals and snacks would lack the time to prepare healthier foods and beverages	3	12.5
Children would not like the taste of healthier meals and snacks	4	16.7
Parents would not support the idea of serving children healthier meals and snacks	3	12.5
We have not experienced any challenges in serving healthy meals and snacks	3	12.5
Teacher Barriers to Encouraging Healthy Food Consumption among Children		
Teachers do not have time to focus on children's healthy eating	3	12.5
Teachers lack knowledge about how to encourage children's healthy eating	4	16.7
Teachers are uncertain how to handle children who are hesitant to try new foods	5	20.8
Teachers are uncertain how to handle children who have negative preferences towards healthy foods	5	20.8
Teachers themselves do not like the taste of the healthy foods that are served at Head Start, so they have trouble encouraging children's healthy eating ^a	9	37.5
Teachers are uncomfortable with their own body weight, so they have trouble encouraging children's healthy eating	3	12.5
Teachers have cultural beliefs about food that are not always consistent with healthy eating	5	20.8

^aCoordinators identified this barrier as the biggest challenge

ECEs' Mealtime Practices & Policies

Overall, Coordinators reported their ECEs followed most SFPs at mealtime. It was reported by 62.7% to 100% of Coordinators that their Head Start organizations followed seven of nine surveyed SFPs (Table 2). All participants reported sitting with children during mealtime and participating in mealtime discussions about the food being served as a common practice. Both of these SFPs also align with recommended practice for family-style meal service (Benjamin-Neelon & Briely, 2011; Fallon et al., 2018; USDA, Memo Code: CACFP 05-2017). None of the Health/Nutrition Coordinators reported ECEs used children's preferred foods to encourage them to eat new or less-preferred foods", or to "calm upset children or encourage appropriate behavior"; both are considered unhealthy feeding practices (Fallon et al., 2018). Coordinators reported implementing the majority of surveyed local, state, and federal-level mealtime policies with one exception: "children are encouraged to taste each food on their plate (Table 3). Social and routine policies were reportedly followed by 100% of programs who chose to respond to these items (n=22), which included "family-style" meal service, "creating a positive mealtime environment through conversation and appropriate feeding behaviors", and "modeling healthy foods and nutrition behaviors". Two programs did not respond to any of the policy-related questions.

Non-SFPs were also reported by the Health/Nutrition Coordinators. Less than half (45.8%) of the Coordinators indicated ECEs address children's hunger before serving children second helpings.

Table 2. *Percentage of Head Start Programs Implementing Mealtime Practices as Perceived by the Health/Nutrition Coordinator (n=24).*

MEALTIME PRACTICES	n	%
Social & Established Routines		
Teachers participate in mealtime discussions about food (e.g. healthy eating, portion sizes) ^a	24	100
Teachers sit with children at mealtime ^a	24	100
Teachers are in the room, but do not sit with children during meals	0	0
Developmental		
Children serve themselves most foods, and children mostly decide what size portions to take ^a	8	33.3
Only children or teachers and children pass the food ^a	16	66.7
Only teachers pass food during a mealtime	3	12.5
Teachers eat only the food and beverages that are being served to children ^a	15	62.5
Teachers eat the same foods and beverages that are being served to children, but teachers also supplement this with items that they bring from outside the center	7	29.2
Teachers primarily eat their own food that they bring from outside the center	2	8.3
Teachers enthusiastically role model healthy eating	20	83.3
Teachers praise children for trying new or less preferred foods	23	95.8
Trust & Self-Regulation		
When children eat less than half of a meal or snack, teachers ask them if they are full before removing their plates	17	70.8
When children request seconds, teachers ask them if they are still hungry before serving more food	11	45.8
Teachers serve most foods to children and teachers decide what size portions to give children	4	16.7
Family-style dining is not practiced, food arrives already portioned on each child's plate.	5	20.8
Teachers require that children sit at the table until they clean their plates	1	4.2
Teachers use children's preferred foods to encourage them to eat new or less preferred foods	0	0
Teachers use food to calm upset children or encourage appropriate behavior	0	0

Note. Cells shaded in grey represent supportive feeding practices as supported by evidenced-based research (Sigman-Grant et al., 2011; Fallon et al., 2018; Dev et al., 2014b).

Table 3: Percentage of Head Start Programs Implementing Mealtime Policies as Perceived by Health/Nutrition Coordinators (n=24).

MEALTIME POLICIES	Implementing Policy		Not Implementing	
	n	%	n	%
Physical				
Children are provided with age appropriate plates and utensils ^d	22	91.7	0	0
A list of children’s individual food allergies is posted in an area where food is prepared or served ^{bc}	24	100	0	0
Food is offered to children every at least every 4 hours ^b	20	83.3	2	8.3
Water is available to children upon request ^{bcd}	22	91.7	0	0
Children must only consume meals and snacks that are provided by the center/organization or foodservice company (i.e. staff, volunteers, and parent/guardians are <u>not</u> permitted to bring food in for child consumption) ^{ac}	20	83.3	2	8.3
Programs serve foods that take into account children’s dietary needs and cultural preferences ^c	22	91.7	0	0
Social & Established Routines				
Teachers and volunteers must follow family-style meals sit and eat the same meals with children ^c	22	91.7	0	0
Classroom staff create a positive mealtime experience and engage with children in conversation and appropriate feeding behaviors ^d	22	91.7	0	0
Classroom staff model healthy food and nutrition behaviors to children ^c	22	91.7	0	0
Developmental				
Meals and snacks introduce children to new foods ^c	22	91.7	0	0
Snacks served to children must be healthy ^c	21	87.5	1	4.2
Trust & Self-Regulation				
Food is never used as a punishment/reward for child behavior ^{cd}	24	100	0	0
Children are not required to finish all of the food on their plates during meal and snack times ^c	22	91.7	0	0
Children are encouraged to taste each food on their plate (“no thank you bite”)* ^c	18	75.0	3	12.5

Notes. Teachers were asked to “Mark One Response” Cells shaded in grey represent supportive feeding practices as supported by evidenced-based research (Sigman-Grant et al., 2011; Fallon et al., 2018; Dev et al., 2014b). Two Coordinators chose not to respond to questions related to policy.

^aCommon Local-level Policy (e.g. Head Start organization, local Health Department) ^bState-level Policy ^cFederal-level Policy (Head Start Program Performance Standards) ^dFederal-level Policy (CACFP)

*A single program (4.5%, n=1) reported they were not implementing this policy because they were not allowed

These findings align with existing literature revealing ECEs may sometimes fail to signal children's internal hunger cues (Kharofa et al., 2016). Though ECEs may have good intentions, failing to address children's hunger cues does not facilitate the development of self-regulation skills in children (Ramsay et al., 2010). In the current study, Coordinators also reported few programs allowed children to serve themselves and decide what portions to take (33.3%). Gregory and colleagues (2010) demonstrated that when children are given little control over what, when, or how much they eat, they may also be less likely to listen to their internal cues by eating in response to hunger and stopping when they are full. One reason for not allowing children to serve themselves may be related to food wastage or the perception that this supportive practice will require more time and create a mess (indicating that allowing children to serve themselves was impractical) (Dev et al., 2014b). However, studies have demonstrated that food waste is not increased, and children who serve themselves waste less food and actually may eat as much as 25% less than those who are provided with plated food at meals (Branen & Fletcher, 1994; Fisher, Rolls, & Birch, 2003). Further, Sigman-Grant et al. (2008) found that ECEs are more likely to model tasting new foods when children were allowed to serve themselves in a family-style meal service context (Dev et al., 2014b).

While the majority of Coordinators (62.5%, n=15) reported ECEs consumed *only* food and beverages served by the center and offered to children and did not bring in outside food or beverages for their personal meals and snacks, some reported that ECEs supplement the food and beverages being served with items they bring from outside the center (29.2%, n=7). Two additional Coordinators (8.3%) reported ECEs primarily ate their own food brought in from outside the center. All participants indicated their programs followed family-style meal service, indicating a potential disconnect between reported practice and actual policy adherence. Family-style meal service requires ECEs to sit and eat meals with children while modeling healthy eating behaviors and allowing children to select and serve their own portions (Dev et al., 2014b). Health/Nutrition Coordinators and/or ECEs may need further training about the specific components included in family-style meal service. Dev and colleagues (2014b) support this finding stating that ECEs may need to be provided with support and instruction when implementing family-style meal service. This finding may highlight a need in Head Start for additional Coordinator and ECE training about best practices when implementing family-style meal service. It may also be an early indicator that programs are beginning to relax their standards for family-style meal service.

Methods of Training & Communicating Mealtime Practices & Policies

The most common reported method of ECE training regarding mealtime practices related to feeding children was attending workshops or training sessions (62.5%), followed by an experienced ECE verbally explaining practices and routines for feeding children (50%) (Table 4). Coordinators frequently reported methods of communicating mealtime policies to ECEs including pre-service (87.5%) and in-service trainings (91.7%). It is unclear if the training being provided to ECEs specifically addressed SFPs or the expertise of the individuals delivering the training. While some training has been cited as available in the past from local health departments and the CACFP program, it appears these trainings focus more on environmental safety and meal standards than strategies for feeding children, and/or the trainings may not be provided by individuals who have expertise in child feeding. Further complicating the issue, ECEs may not actually receive training from CACFP. The cook, program director, and/or Health/Nutrition Coordinators may be more likely to receive this training due to their role in ensuring program compliance with federal meal standards (Sigman-Grant et al., 2011).

Sigman-Grant and colleagues (2011) cited the importance of providing training focused on supportive feeding strategies for preschool-aged children. However, the frequency of training

may not be as important as the accuracy of the information provided and the background of the individual providing the training. With half of the participating programs stating more experienced ECEs provide new ECEs with training, more research is needed to understand the specific content of training on mealtime practices and policies being provided to ECEs in the Head Start environment.

Table 4. *Head Start Programs Reported Use of Methods for Training and Communicating Mealtime Practices and Policies to ECE (n=24).*

	n	%
Methods of Training New Teachers about Mealtime Practices & Routines		
Experienced teacher verbally explains the practices and routines that apply to feeding children	12	50.0
Teachers are asked to review the program’s written guidelines for feeding children	8	33.3
Teachers view videotapes about feeding children	4	16.7
Teachers attend a workshop or training session about feeding children ^a	15	62.5
Teachers are asked to read books or articles about feeding children	2	8.3
Teachers do not receive any training about feeding children other than observing what the more experienced teachers do during meals and snacks	0	0
Methods for Communicating Policies related to the Mealtime Environment		
Pre-service Training (before the school year officially begins)	21	87.5
In-service Training (during the school year)	22	91.7
Policy Manual	16	66.7
Center Director	9	37.5
Conferences	9	37.5
Webinar	7	29.2

Note. Teachers were asked to “Mark All That Apply”

^aCoordinators identified this approach as the most commonly used

CONCLUSION & APPLICATION

The use of SFPs in childcare centers is vital to promote healthy eating behaviors in children. Findings suggest NC Head Start programs generally utilize SFPs during mealtime, however, they may need additional support to improve practices related to self-regulation. It may be too early to fully understand the full impact of Head Start PPS regulatory changes related to family-style meal service, however, discrepancies were noted between practice and policy in this area. This study provides insight on areas that need improvement and may be of benefit to public health professionals interested in making effective changes to improve child nutrition among preschool aged children.

Head Start has been the subject of many studies and interventions focused on the promotion of healthy eating (Dev et al., 2013; Kong et al., 2016; Mabli & Worthington, 2014). Dev and colleagues (2013) compared childcare provider feeding practices to the Academy of Nutrition & Dietetics Benchmarks for Nutrition in Childcare (Benhamin-Neelon et al., 2018) with childcare feeding practices in Head Start and non-Head Start programs (i.e. Head Start, CACFP, and non-CACFP centers). Researchers found that Head Start programs were more likely to implement SFP and provide healthy foods compared to non-Head Start programs. Findings from the current study of NC-based Head Start programs support that work with Coordinators reporting ECEs use

of the majority of SFPs surveyed. Existing research suggests Head Start programs may be more likely to utilize SFPs due to federal PPS and CACFP policy requirements (Dev et al., 2014a; Dev et al., 2016; Sigman-Grant et al., 2011). Findings from this study, however, also indicated that ECEs may experience challenges with implementing SFPs that support children's internal cues of hunger and satiety (e.g. allowing children to serve themselves and asking children about hunger/satiety cues). Many school district's nutrition programs provide meals to Head Start programs. School nutrition professionals can use their expertise in working with Head Start programs to provide training for ECEs on how to teach children how to recognize hunger and fullness cues. Some suggestions include: teaching children vocabulary to express their hunger and fullness signals; asking questions such as "Are you still hungry?" and "Are you full?"; modeling and talking about their own feelings of fullness; respecting children's cues once expressed; and discussing hunger signals, such as rumbling in tummies (McBride & Dev, 2014).

There also seems to be a disconnect between what ECEs (and in this case administrators) say they should do, and what they are actually observed doing (Benjamin-Neelon & Briley, 2011; Erinoshio et al., 2012; Fallon et al., 2018). For example, a study observing feeding practices in Head Start compared ECEs self-reported practices with observed feeding practices. Results indicated that the majority of ECEs reported using a variety of SFPs, however, the self-reported data did not align with researcher observed mealtime behaviors (Fallon et al., 2018). Erinoshio and colleagues (2012) observed a similar outcome in a study of 112 ECEs across 50 centers. They suggested that policies may be effective at promoting some healthy mealtime behaviors among ECEs, but that policies alone may not be sufficient to promote healthy dietary intakes among ECEs in the presence of children at mealtimes. ECE's feeding practices and dietary behaviors have been highly associated with dietary intake among children (Gubbels et al., 2010), making this a critical area for further research.

In the current study, we observed discrepancy between reported practices (e.g. consuming outside food during mealtime) and policy related to family-style meal service. Because meals served in the childcare environment follow CACFP standards, one can assume they are generally healthy and balanced in nutritional components (USDA, 2014). However, this same assumption cannot be made about foods ECEs bring to eat as a supplement to, or in place of, the foods and beverages being served to children. In the current study, ECEs' personal food preferences were cited by Coordinators as the biggest challenge to encouraging healthy eating among children. Swindle and Phelps (2019) conducted 28 in-person interviews with Head Start ECEs (n=15) and non-Head Start ECEs (n=13). Poor food quality in relation to health and taste created challenges for ECEs who were attempting to model healthy eating and engage in SFPs. When foods were served that ECEs did not find appealing, they reported pretending to eat the food, telling children their physician told them not to eat it, cutting up their food into small bits, and simply allowing their plate to sit in front of them without eating it. The provision of healthy food and beverage options as a benefit of working in the center may encourage ECEs to consume healthier foods and beverages in the presence of children (Erinoshio et al., 2012), but foods must be "appealing" to ECEs (Swindle & Phelps, 2019). This is a critical area where school nutrition professionals can potentially make a positive impact on the health of ECEs and preschool-aged children.

In order to support the implementation of effective child feeding practices in a way that may prevent future childhood obesity, staff must be trained with an emphasis on feeding practices that support a healthy weight (Sigman-Grant et al., 2011). Existing literature also suggests that strengthening communication, and training focused on practice and policies related to feeding children may be necessary to effectively put written policy into action (Dev et al., 2016; Neelon & Briley, 2011; Mita, Li, & Goodell, 2013; Peterson et al., 2017). To the author's knowledge, there are no previous studies that have explored policy communication from the administrative

level to ECEs. Results from the current study indicate in-service training sessions and workshops are common methods used to communicate mealtime policies to ECEs, and ECE training on SFP is most commonly provided through workshops. These methods may be effective; however, this study did not assess the specific content of ECE training or the expertise of the individuals providing the training. More research is needed to understand these variables. For example, 50% of the programs represented in this study reported more experienced ECEs currently provide new ECEs with training about mealtime practices and policies. Considering the high rate of turnover among Head Start ECEs (Wells, 2015), it may be more sustainable and cost-effective to use a “train-the-trainer” model with the Health/Nutrition Coordinator receiving the initial training from professionals in child and school nutrition before training ECEs.

The current study is not without limitations. The respondents for the survey were administrators from one state who may have been more familiar with ECE written policies at the local, state, and federal levels. These administrators may anticipate ECEs to be implementing practice as per the policy, which may not be an accurate assumption (Fallon et al., 2018). Coordinators may also have responded based on what they know should be happening per policy, versus what is actually happening. This phenomenon may explain why two Coordinators who chose not to respond to any of the questions related to policy. These individuals may have chosen to recuse themselves from this portion of the survey versus provide untruthful information about policy adherence. Finally, social desirability cannot be completely ruled out when interpreting results from this study. Coordinators may have provided responses based on what they believe is expected of their ECEs and the Head Start organization, rather than ECEs’ actual practices. It is also possible that ECEs are more willing to adhere to policies while being observed by an administrator, such as Health/Nutrition Coordinator, which could have affected the observations of ECEs in the classroom.

Future research should use observational methods to explore the impact of ECE feeding policies and training strategies on actual practice in the classroom (versus administrative perceptions), and the impact on children’s dietary behaviors. The long-term impact of changes to Head Start’s PPS on family-style meal service should also be reevaluated with future research. Authors theorize that as programs face common barriers to family-style meal service (e.g. food waste, time), it is likely fewer centers will utilize this practice, which may have long-term implications for childhood obesity prevention efforts in Head Start. Through education and training, school nutrition professionals have an opportunity to help Head Start programs maintain use of this best practice.

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