Academy of Nutrition and Dietetics Benchmarks for Nutrition in Child Care 2011: Are Child-Care Providers across Contexts Meeting Recommendations?

Dipti A. Dev, MS; Brent A. McBride, PhD; The STRONG Kids Research Team

ARTICLE INFORMATION

Article history:
Accepted 15 May 2013
Available online 2 August 2013

Keywords:
Child-care nutrition policies
Child-care providers
Feeding practices
Head Start Program
Child and Adult Care Food Program

2212-2672/$36.00
http://dx.doi.org/10.1016/j.jand.2013.05.023

ABSTRACT

The Academy of Nutrition and Dietetics (Academy) recommends feeding practices for child-care providers to establish nutrition habits in early childhood to prevent obesity. With >12 million US children in child care, little is known about child-care providers' feeding practices. The purpose of this study was to examine child-care providers' feeding practices to assess whether providers met the Academy's benchmarks and whether attainment of benchmarks varied across child-care contexts (Head Start, Child and Adult Care Food Program [CACFP], and non-CACFP). Cross-sectional data was collected in 2011 and 2012 from 118 child-care providers who completed self-administered surveys regarding their feeding practices for 2- to 5-year-old children. χ^2 tests and analysis of variance were used to determine variation across contexts. Head Start providers sat more frequently with children during meals (P=0.01), ate the same foods as children (P=0.001), and served meals family style (P<0.0001) more often compared with CACFP and non-CACFP providers. Head Start providers (P=0.002), parents (P=0.001), and children (P=0.01) received more nutrition-education opportunities compared with CACFP and non-CACFP. Head Start providers encouraged more balance and variety of foods (P<0.05), offered healthier foods (P<0.05), modeled healthy eating (P<0.001), and taught children about nutrition (P<0.001) compared with CACFP and non-CACFP providers. Providers across all three contexts used significantly more non-internal than internal mealtime verbal comments (P<0.0001). Head Start providers had greater compliance with the Academy's benchmarks compared with CACFP and non-CACFP providers. Possible reasons for this compliance might be attributed to Head Start nutrition performance standards and increased nutrition-training opportunities for Head Start staff. Head Start programs can serve as a model in implementing the Academy's benchmarks.
J Acad Nutr Diet. 2013;113:1346-1353.

THE POSITION STATEMENT RELEASED IN 2011 BY the Academy of Nutrition and Dietetics (Academy), Benchmarks for Nutrition in Child Care,[1] provides guidance for child-care providers in meeting benchmarks for healthful mealtime feeding practices for preschool children (aged 2 to 5 years) to help them develop long-term positive eating behaviors and prevent obesity. Specifically, the Academy recommends that providers model and encourage healthful eating, support children's hunger and satiety cues, serve meals family style, and not pressure children to eat.[1]

Child-care providers play an important role in shaping the health of our nation's children. More than 12 million preschool children attend child care, and typically consume half to three quarters of their daily energy while in full-time child-care programs,[2-5] which makes this an ideal setting for the promotion of healthful eating. Child-care programs serve as homes away from home, where children develop early nutrition-related behaviors that continue to shape their food habits and nutrient intake patterns—potential risk factors in obesity—through adolescence and adulthood.[6-10] Young children are more likely than older children to be influenced by adults in an eating environment.[11] Among the social factors within the child-care environment, providers' feeding practices were highly associated with children's dietary intake.[12] Therefore, child-care providers offer potential opportunities for shaping children's dietary intake and eating behaviors,[13] and should be a primary focus for childhood-obesity prevention. However, existing obesity-prevention strategies are focused mainly on late childhood and adolescence and have limited success because eating behaviors are already established by school age.[10]

Achieving the Academy's benchmarks[1] is a public health priority, given that the prevalence of obesity among US preschool children is at an all-time high, with 26.7% of preschool children overweight or obese.[14] Obese preschoolers are predominantly at risk because of the strong trajectory of overweight and its spectrum of comorbidities (eg, type 2 diabetes,[15,16] cardiovascular disease[17-20]) in adolescence and adulthood.[21-23] Epidemiological evidence suggests child-care

experiences during the preschool years have a significant impact on weight status in childhood.[24,25] Achieving the Academy's benchmarks can benefit many low-income, minority children attending child care and their families at greatest obesity risk.[1] Yet, to our knowledge, research evaluating adherence to the Academy's 2011 benchmarks, with a focus on provider feeding practices, has not been published, indicating a prime opportunity for obesity prevention has been missed.

Variation in child-care nutrition policies creates different policy-based contexts (ie, Head Start, Child and Adult Care Food Program [CACFP], and non-CACFP) that can play an important role in how the Academy's benchmarks are addressed. The US Department of Agriculture's supplemental nutrition assistance program, CACFP, provides reimbursement for meals and snacks to 3.2 million low-income preschool children daily, but lacks nutrient-based standards.[26] Participating sites have to comply with meal pattern requirements to get reimbursed for the meals.[26] Head Start programs not only follow the CACFP meal pattern requirements, but are also required to follow Head Start Performance Standards for child nutrition, which require that providers use feeding practices that are similar to the Academy's benchmarks.[27] However, research evaluating adherence to Head Start standards is lacking.[5] In addition, given that licensing agencies in most states do not require specific feeding standards in child care,[28] it is unlikely that centers not falling under Head Start mandates would adhere to a formal set of healthful feeding practices such as those outlined in the Academy's benchmarks.

Despite the variation in nutrition policies across child-care contexts, to our knowledge, no published studies have evaluated how provider feeding practices vary across these policy-based contexts. Without such information, it is difficult to plan training or implement obesity-prevention efforts. Therefore, the objective of this study was to examine child-care providers' feeding practices to assess whether providers met the Academy's benchmarks and whether attainment of benchmarks varied across contexts (Head Start, CACFP, and non-CACFP). We hypothesized that federally regulated Head Start programs would be more proficient in achieving the Academy's benchmarks than programs enrolled in CACFP; and programs that are neither Head Start nor CACFP (non-CACFP).

METHODS

This study was approved by the University of Illinois Urbana-Champaign Institutional Review Board for research involving human subjects. All subjects provided written informed consent before participating in the study.

Study Sample

Participants were providers recruited from center-based child-care programs participating in the STRONG Kids program, a larger longitudinal study at University of Illinois Urbana-Champaign that examines parental and home determinants of childhood obesity.[29] Child-care programs in three small urban communities were recruited from a sample with unequal probability of selection among licensed programs in a three-county diverse geographic area in the Midwest that met the following inclusion criteria: Head Start program operating within the grantee agency providing Head Start services in the target communities, or child-care center licensed by the state regulatory agency; located within 65 miles of the study center in one of four small urban areas targeted to maximize racial/ethnic diversity; and enrolled a minimum of 24 children in the age range of 2 to 5 years. These criteria identified 38 eligible programs from all child-care centers present in the three-county area, of which 36 (6 Head Start, 17 CACFP, and 13 non-CACFP) agreed to participate in STRONG Kids program. For this sub-project, 24 center directors (6 Head Start, 11 CACFP, and 7 non-CACFP) agreed for their providers to participate.

Survey Administration and Data Collection

Provider recruitment began in August 2011 and data collection was completed in February 2012. Center directors distributed consent forms to providers who met the eligibility criteria—employed full time at the child-care program, were present with children at lunchtime or, at a minimum, during snack time, and taught children ages 2 years and up. Providers who consented to participate could complete the survey online or in a paper format. Upon survey completion, providers were mailed a $10 gift card. A total of 123 child-care providers completed and returned the surveys (80% response rate). Data for 5 of the 123 participants was excluded from analyses because they reported only caring for children younger than 2 years.

Measures

To assess provider compliance with the Academy's benchmarks, we used previously validated instruments.

Demographic Characteristics. Provider characteristics[30] across contexts are presented in Table 1.

Nutrition and Physical Activity Self-Assessment for Child-Care (NAP SACC). The NAP SACC was developed to describe the nutrition, physical activity environment, and practices of child care.[31,32] Items from the NAP SACC included meals served family style and nutrition-education opportunities provided to providers, children. and parents.

Child Feeding Questionnaire (CFQ) and Comprehensive Feeding Practices Questionnaire (CFPQ). These questionnaires are valid measures that assess parents' attitudes and feeding practices with preschool children.[33-35] Therefore, slight modifications to the wording of the questions were made to reflect practices of child-care providers; for example, "My child should always eat all of the food on her plate" was modified to "Children at my table should always eat all of the food on their plate." Brann[36] used this same approach to examine family day-care providers' feeding practices and reported internal consistencies >0.65. Mean scores were calculated for each subscale, with possible mean item scores ranging from 1 to 5, with higher scores indicating a greater tendency toward these practices (eg, 5=always agree). Because of skewed responses on food as reward items on the CFPQ, with very little variation across responses, this subscale was dropped from subsequent analyses.