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How to Help Parents Pack Better Preschool Sack Lunches: Advice from Parents for Educators

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INTRODUCTION

Childcare is an important portal for behaviorally-based nutrition interventions that promote healthy dietary behaviors among young children (1,2). Good nutrition habits have been shown to help prevent obesity and reduce risks for cancer, type 2 diabetes, and other nutrition-related diseases (3). The number of childcare facilities in the US has more than quadrupled between 1977 and 2009 (4). Care outside of the home has become the norm for young children with 73% of children ages three to five and 51% of children birth to two in regular, non-parental care at least one day per week. In the US, 36% of children ages birth to five are in center care for an average of 29 hours per week (5). Although the provision of meals and snacks prepared on site is characteristic of many childcare programs, other centers require parents to supply some or all foods for their children at the childcare setting. Research in four Western states showed 41% of centers relied on parents to provide at least part of the meals and snacks, and 10% required parents to provide all foods for their child (6).

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Observations of lunches of three to five year old children attending fulltime childcare support the need for parent education about packing healthy lunches. Direct observation of 398 sack lunches of preschool-aged children at childcare centers in California showed only 16% contained a vegetable and 69% included a fruit or fruit juice whereas more than 80% contained low-nutrient foods such as chips, cookies, and sweetened beverages (7). A similar study of three days of sack lunches for 74 three to five year old children at centers in Texas showed the majority were deficient in servings of fruits and vegetables relative to the Child and Adult Care Food Program (CACFP) guidelines and failed to supply one-third of recommended Dietary Reference Intakes for energy, calcium, iron, and other essential nutrients (8). Bruening et al. compared lunches at childcare centers that were sent from home to lunches prepared at childcare centers that participated in CACFP and found that lunches from home were significantly lower in servings of vegetables and dairy (9).

During the preschool years, from age three to five, parents retain the primary responsibility for development their child's food preferences through exposure, modeling, accessibility and availability (10,11). Several studies have demonstrated parents' nutrition knowledge and attitudes were positively linked to serving fruits and vegetables to their young children (12–14). However, parents have also identified several barriers to supporting healthy eating in their young children. Common barriers for consumption of fruits and vegetables are the child's preferences, preparation time involved, and higher cost of those items (15–17). Parents of primary school-aged children have acknowledged limited ability to recognize whole grain items in the grocery store (18).

The purpose of this exploratory study was to obtain input and advice from parents about messages and activities to help pack better sack lunches for preschool children.

METHODS

Parents from three childcare centers that did not participate in CACFP and required parents to send sack lunches from home were recruited to participate in group interviews. All parents of three to five year old children attending the childcare center were invited to participate. The group interviews were held at the centers in the evening. A meal was provided for both parents and children. In addition, parents received a \$25 grocery gift card. Active written consent was obtained in advance of group interviews.

A modified nominal group technique was used for the group interviews with one facilitator and one scribe. Audio recordings were made. The steps for the modified nominal group technique included 1) introduction of the question, 2) silent generation of ideas in writing, 3) round robin sharing and listing of ideas on a flip chart, 4) discussion of ideas, 5) ranking of ideas and 6) arriving at consensus (19). The written statements were collected, combined with the audio transcripts and reviewed by investigators. Investigators identified common themes. Frequencies of the themes were calculated based on the total number of written responses. The research protocol was approved by the Institutional Review Board at The University of Texas at Austin.

RESULTS

Group interviews were conducted at three childcare centers in a large metropolitan city in Central Texas. The interviews were conducted with three groups of parents for a total of 31 participants. Responses to a written questionnaire of demographic characteristics are presented in Table 1. The majority of participants were mothers, although there were several mother/father dyads. Group 1 was made up of 87% (7) White and 13% (1) African American. Group 2 had a representation of 60% (6) Hispanic, 30% (3) White and 10% (1)

African American. Group 3 was comprised of 58% (7) White and 42% (5) Hispanic. Represented families contained 1–3 children and the majority of respondents had attended or completed college. The mean Body Mass Index that was based on self-reported weight and height was in the overweight range for both males and females.

Each group interview was completed in approximately 90 minutes. Written statements were compiled for all participants. Since some written responses were simply phrases, the transcripts were used to complete the thoughts of the each participant. The material yielded 109 statements (35 from group one, 27 from group two and 47 from group three). The primary question “What are the one or two most important messages for parents about child nutrition?” was followed by “How would you recommend presenting that information to parents?” Themes and supporting comments are presented in Table 2.

One prominent theme, with a frequency of 29% (present in 31 comments), was a desire for regular written information from the childcare center. Suggested written formats were handouts and recipe ideas. Mentioned topics included vegetables, whole grains, sugars and fats as well as long term health benefits. One parent stated “I don’t have a problem with fruits and whole grains, but vegetables is hard.” Another responded “name five whole grains...that just baffles me right now.” Parents suggested that the materials could be sent home via the enrollment packets at the beginning of the school year or inside children lunch boxes. Other information that parents desired was “feedback about what our kids are eating.” Parents indicated that this type of information would guide them to make changes but that “nasty notes from the teacher don’t help...keep it positive.” Requests for information were spread across all three groups.

The second major theme also with a frequency of 29% (present in 31 comments) was an interest in activities that stimulated parent interaction. Parents expressed a desire to know “what other parents were packing and does it work?” A suggestion was made that “if we all packed the same things in every child’s lunch would they eat it better?” Sharing recipes and lunch ideas were the common stated goal of parent interaction. Parents suggested that the childcare center could facilitate the interaction through bulletin boards and classes. Comments about parent interaction and sharing ideas were spread across all three groups.

The third major theme with a frequency of 20% (present in 21 comments) indicated that parents were open to activities and workshops. They said “I wish we could do classes” or “a lunch symposium.” They suggested “a hands-on where you show the financial benefits of buying a box of crackers and a thing of cheese and a thing of ham versus buying five [prepackaged product for children].” A suggestion was even made for a “vegetable support group.” Comments for suggested sessions and workshops were spread across all three groups.

The fourth major theme was requests and recommendations for support from local supermarkets. Parents said “partnership with markets kind of goes along with sales and coupons and knowing what’s around to buy that might be quick and cheap” and “it would help if they had tables with fruit and vegetables that would be good for my son’s lunch, at that moment when you have to make the decision to buy good stuff only.” These kinds of statements accounted for 10% (11 responses) of the comments.

Other themes that showed up infrequently referred to dollar and time costs. One parent suggested “presenting a class on healthy eating, menu prep or planning for the week, especially on a budget...I’m a single mom, and I know it’s tough sometimes.” Other responses included pre-made shopping lists or lunch menus as ways to save time for busy parents. Statements related to dollar and time cost were found in 7% (8 responses) and 2% (2 responses) respectively. Budget concerns were spread across all three groups.

DISCUSSION

Results of this exploratory study show parents want information, guidance, education, and support for packing better lunches for their preschool children. A dominant theme was requests for literature, handouts, and flyers with menu ideas, easy recipes, portion sizes, sources of specific nutrients, and information about nutrition and its connection to health. Parents viewed the centers as a source of nutrition information and feedback about their children. These results are similar to a study by Gupta et al. that showed that parents viewed handouts distributed through their childcare center as an effective method of nutrition education (2).

In addition to information and guidance from the centers, parents also desired opportunities to interact and learn from each other. They suggested family recipe exchange, cooking together, and “vegetable support group,” and expressed interest in knowing what other parents were packing in their children’s lunches. Parents seemed to recognize that working together might benefit all of their children. The frequency of activity suggestions possibly indicates that these working parents would be willing to dedicate their free time to engage with each other in food-related activities. The responses for both of these themes also may suggest a desire to build a greater sense of community within their childcare center.

They perceived local stores as being in a position to provide information, recipe ideas, and samples targeted to them as parents of preschool children, as well as a desire for food markets to make it easier to make healthy, affordable choices at the point of purchase. Through their responses they identify themselves as a specific consumer group that would regularly purchase items that were designed and packaged for their needs. Local grocery stores that do some of their own prepackaging may benefit from this consumer group.

IMPLICATIONS FOR RESEARCH AND PRACTICE

Information from parents about packing lunches for preschool children can be a useful resource for both the nutrition educator and the childcare director. Although the current study was limited by the small size, convenience sample, and single geographical location, it provides useful insights from a unique parent population. The parents in the present study have provided ideas and strategies for educators that they are excited about. Parents do not just want information; they also want new and easy menu suggestions. While they indicate handouts are useful, they would also like to interact with other parents and build community that provides social support. Their comments also demonstrate a recognition that they would be able to learn from each other. Childcare directors could plan nutrition activities that combine education with family time and also strengthen the childcare center community. An opportunity exists for nutrition educators to offer programs to childcare centers and engage the local grocery retailer as well. Overall parents acknowledged the need and desire to work with the center, other parents and grocery stores to improve the nutritional value of their child’s lunches. This information can guide selection of methods and strategies for future program.

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Table 1

Demographic information of parent group interviews for advice for packing sack lunches for preschool-aged children (n=31)^a

Characteristics			
	CCC #1	CCC #2	CCC #3
Total enrollment	60	50	95
Ages enrolled for full day	<1 year – Pre-K	2 year – Pre-K	<1 year – Pre-K
Number in Group Interview	8	11	12
Number of mother/father dyads	1	2	2
Number of mothers	6	7	7
	Mean ± SD ^b		
Age (y)	34.9 ± 7.0		
Body Mass Index			
Female	28.6 ± 9.6		
Male	30.6 ± 6.6		
Number of people in household	3.7 ± 0.8		
Number of children in household	1.7 ± 0.8		
	n		%
Gender			
Female	25		81
Male	6		19
Education			
High School or less	3		10
Some college or post high school education	8		26
College graduate	12		39
Some graduate/professional school	1		3
Completed graduate/professional school	7		23
Annual household income			
<\$20,000	3		10
\$20,000–\$40,000	9		29
\$40,000–\$60,000	7		23
\$60,000–\$80,000	3		10
\$80,000–\$100,000	1		3
>\$100,000	8		26
Ethnic background			
Black, African-American, non-Hispanic	3		10
Hispanic of Latino	11		36
White European American, non-Hispanic	17		55
Marital status			
Single, never married	5		16
Married	22		71
Living with partner	2		7

Characteristics		
Divorced	2	7
Relation to child		
Mother	25	81
Father	6	19

^aFrequencies may vary due to missing data

^bSD=Standard Deviation

Table 2

Themes with frequencies and key comments from group interviews with parents (n=109).

Theme 1. Desire for regular written information from the childcare center, particularly recipe ideas and details about nutrients and their connection to health (29% or 31 responses)	
1.1	More literature; Reminders; Handouts and flyers and little tip cards
1.2	We need the school to partner with us in this; They should say 'bring 4 bags of carrots' or 'bring cut up celery' [for snack].
1.3	I'd love for someone to shower me with 10 new ideas; We could say on Friday, 'this is the recipe for the week;' It would be good if the school had recipes.
Theme 2. Interest in activities that stimulate parent interaction such as family fun nights, health fair, "vegetable support group," and recipe exchange (29% or 31 responses)	
2.1	Talking with other parents...help facilitate us to talk; Educating and learning from each other; If we do it in a group, where there is peer pressure involved, that would help.
2.2	Have a family tasting night with everyone bringing a healthy dish and the recipe...if my children tasted it and I see they liked it, I could just grab the recipe and say, 'OK, this is what we need to add to your lunch.'
Theme 3. Openness to parent workshops and activity stations (20% or 21 responses)	
3.1	We have parent workshops, so maybe one of them could be about nutrition; Parent night with a speaker coming in and talking about the importance of health and giving us food options
3.2	like one of those kitchen super suppers where we all bring stuff and are all shown how to pack it
Theme 4. Desire for support from local food markets through packing or promotions (10% or 11 responses)	
4.1	Partner with a market so it is not only from the school but from the market.
4.2	Markets could offer samples or examples of foods that can be offered cold or some recipes.