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Harvest of the Month for Early Childhood Education: Parent Perspectives

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Harvest of the Month for Early Childhood Education: Parent Perspectives

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The purpose of this research brief is to report on the impact of Harvest of the Month (HOM) for Early Care and Education (ECE) at home to better understand parent perspectives and influences on children's nutrition behavior. Harvest of the Month (HOM) is a farm to school programming strategy that features a locally grown food in at least one nutrition and agriculture lesson, taste test activity, and a snack or meal recipe each month. This exploratory study used a survey research design to gather parent perspectives during pilot implementation of HOM for ECE during the 2017 – 2018 school year. The survey was delivered electronically. Twenty-one parents from a campus-based preschool program in the northwest United States reported procurement and consumption of HOM foods at home. Findings suggest that a variety of HOM foods are being served and consumed at home. Parents in this study placed more importance on knowing where food comes from rather than serving local foods. Further, parents' knowledge of farm to ECE, reported food purchasing at farmer's markets, and participation in community-supported agriculture (CSA) programs were limited, suggesting a need for continued targeted parent education that could have a positive effect of families' healthy eating.

Keywords: Harvest of the Month, early childhood nutrition, family nutrition, parent education

Introduction

The farm to school movement aims to change community health outcomes by engaging schools and early care and education (ECE) sites in three core elements: local food procurement, education, and gardening. Harvest of the Month (HOM) is an approach to farm to school programming that has been successful in increasing knowledge, promoting positive attitudes, and increasing local food consumption in K-12 settings (Margolin et al., 2018; Yoder et al., 2014). In Montana, HOM seeks to increase exposure and support local producers of Montana grown foods. HOM programming features a locally grown food in at least one nutrition and agriculture

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lesson, taste test activity, and a snack or meal recipe each month at school. Programming is further supported by the distribution of ready-to-use materials, including posters and newsletters for cafeteria and classroom environments, and parent newsletters. In recent years, HOM has expanded its reach, with content and resources available in many states, including California, Georgia, Illinois, Montana, South Carolina, and Vermont. To promote connections between local agriculture, increase the availability of nutritious foods, and influence eating behaviors in the early years of life, HOM has expanded to include ECE programs, therefore broadening the reach from K-12 settings to include young children and their families.

As children begin developing food preferences and behaviors early in life, nutrition education in ECE settings can be especially impactful in influencing lifelong eating habits, particularly when combined with efforts at home (Savage et al., 2007). Family members living in the same home as the child, and parents, in particular, are often considered key gatekeepers and socializing agents to children's early eating patterns (Larsen et al., 2015; Maher et al., 2010; Savage et al., 2007). Availability and easy accessibility of foods are associated with greater consumption of healthy foods (Savage et al., 2007). Research suggests that food-related parenting practices, including early introduction, positive reinforcement, modeling, and repeated experiences with foods, are beneficial to encourage children to engage in healthy eating patterns (Savage et al., 2007). These food-related parenting practices could be reinforced by consistent adult supports across multiple environments where children are regularly interacting with food, including childcare settings and the home (Larson & Story, 2009; Savage et al., 2007). A meta-analysis of interventions for children five and under indicated potential for behavior change through repeated exposures across multiple settings, noting a need for further research on implications of these interventions on family habits (Wolfenden et al., 2012).

Purpose

In this study, family nutrition behavior, including procurement and attitudes about local foods, were examined through survey methodology using an exploratory research design. Data were collected from parents of preschool children participating in a HOM for ECE pilot program to (a) examine trends in household nutrition behavior, including consumption, procurement, meal planning, and (b) explore parents' perceptions and attitudes related to the importance of HOM products and local foods in their home.

Methods

The HOM for ECE program was piloted in a preschool in Montana during the 2017-2018 school year, from August to May. Each month, one nutrition education lesson was taught, one taste test was conducted, and one meal or snack menu item was modified to focus on each HOM food. For example, children learned about different parts of an apple, tasted dehydrated local apples, and prepared apple muffins that met Child and Adult Care Food Program (CACFP) meal pattern

guidelines for an afternoon snack. Since the academic year lasted ten months, ten lessons, ten taste tests, and ten meals or snacks were completed throughout this study.

Sample

One preschool program located on a university campus, enrolling children ages three to six, was selected as the setting for this study through purposeful sampling of participating HOM for ECE pilot sites and an existing relationship with the researchers. The preschool participates in CACFP and takes pride in offering a project- and play-based curriculum, including healthy and nutritious meals and snacks, according to the family handbook. Less than ten percent of families receive free and reduced meals, and more than fifty percent of families are employed on campus.

Measures

Researchers were not aware of a short survey with established validity and reliability aimed to measure parent perspectives and food behaviors related to HOM for ECE. The exploratory nature of this study led the research team to design a parent survey to measure key components of HOM for ECE at home, including local food procurement and consumption, as well as family meal planning and nutrition behavior. Specific questions regarding parent demographics (e.g., age, education, race, SES) were not included in the survey, as the emphasis in this study was to gather preliminary results and parent perspectives to inform future research efforts about the potential impact of HOM for ECE.

Twenty survey questions included twelve fixed, two open-ended, and six Likert-scale response options. Parents were asked to categorize how often (*not sure, never, 1-3 times, 4-6 times, > 6 times*) they or their child consumed each HOM food at school and at home in the past month. Weekly menus were posted at the preschool to aid in parent knowledge of meals served at school. Consumption frequency is reported as a percentage of parent respondents. Questions about gardening habits (e.g., *Do you maintain a garden at home?)*, Farmer's Market attendance, and participation in Community Supported Agriculture (CSA) were asked to yield information about established connections to local foods. Additionally, parents were asked to categorize their perceptions of the importance of serving local foods at home and at school and knowing where your food comes from (*not at all* to *extremely important*). One open-ended question was included at the end of the survey for parents to provide additional comments about food purchasing and mealtime habits at home. Upon IRB approval, the survey was delivered electronically to all parents via the preschool director in May 2018. Survey data were collected through the end of the month, and only one request to complete the survey was sent.

Of the forty-five enrolled children, twenty-one of a total of eighty-five parents completed a consent form and responded to the survey (25% rate of return). It is not known if more than one parent from the same family completed the survey as identities were anonymous. Survey data were analyzed using descriptive statistics.

Results

Results are summarized and organized in this brief report to provide an understanding of parent perspectives.

Household Nutrition Behavior

Comparing parent and child consumption frequency at home (Tables 1 and 2), adults reported eating more kale than their children ate, but otherwise, both consumed many of the HOM foods with similar frequency. Some popular HOM items represent broad food categories and do not specify a particular food variety, such as grains and leafy greens. Other commonly consumed HOM food items for families were apples and carrots, consistent with information reported in the literature about children's fruit and vegetable consumption (Fox et al., 2010). The least consumed HOM food items for families were summer squash, winter squash, beets, and lentils.

Table 1. Parent Consumption Frequency of HOM Foods at Home

	Not sure		**Never**		**1-3 times**		**4-6 times**		**> 6 times**	
	n	**%**	***n***	**%**	***n***	**%**	***n***	**%**	***n***	**%**
Summer squash	1	5	7	33	10	48	2	10	1	5
Kale	2	10	5	24	7	33	3	14	4	19
Apples	0	0	0	0	0	0	4	19	17	81
Winter squash	0	0	12	57	7	33	1	5	1	5
Carrots	0	0	0	0	0	0	4	19	17	81
Beets	1	5	5	24	13	62	1	5	1	55
Beef	0	0	4	19	6	29	3	14	8	38
Grains	1	5	0	0	1	5	2	10	17	81
Lentils	0	0	7	33	11	52	1	5	2	10
Leafy greens	0	0	0	0	0	0	2	10	19	90

Table 2. Child Consumption Frequency of HOM Foods at Home

	Not sure		**Never**		**1-3 times**		**4-6 times**		**> 6 times**	
	n	**%**	***n***	**%**	***n***	**%**	***n***	**%**	***n***	**%**
Summer squash	1	5	8	38	11	52	0	0	1	5
Kale	1	5	11	52	5	24	3	14	1	5
Apples	0	0	0	0	0	0	4	19	17	81
Winter squash	2	10	11	52	8	38	0	0	0	0
Carrots	0	0	0	0	1	5	5	24	15	71
Beets	1	5	7	33	12	57	0	0	1	5
Beef	1	5	4	19	5	24	3	14	8	38
Grains	0	0	0	0	2	10	4	19	15	71
Lentils	0	0	8	38	10	48	2	10	1	5
Leafy greens	0	0	2	10	4	19	3	14	12	57

There were limited reports of CSA participation and varied attendance at farmer's markets, but many parents reported growing their own food at home. Only ten percent of parents (n = 2) reported participation in a CSA, either for 1-2 seasons or for 3-4 seasons. Nearly 50% of parents (n = 10) reported attending a farmer's market *very often* or *often,* with only one parent reporting never attending a farmer's market. Of those that did attend, some parents reported purchasing only one type of food item at the farmer's market, typically vegetables, while other parents reported purchasing two or more types of foods. Ten percent (n = 2) of parents reported purchasing all five types of food items (animal proteins, grains, dairy, fruits, and vegetables). Seventy-one percent (n = 15) of parents reported maintaining a vegetable garden at home.

Parent Perceptions of Local Foods

A majority of parents responded that knowing where your food comes from (71%) was more important than serving local foods at home (62%) and serving local foods at preschool (55%). (Table 3). Furthermore, parents revealed that it is more important to serve local foods at home than at preschool. Despite the desire for healthy choices, parents experienced challenges as well. In an open-ended response, one parent explained their views on local foods and HOM impact; they said, "We try to buy organic when possible, and local when possible. But we get busy and often do not. [The preschool director] emailed us a recipe for lentil muffins that looked great, but we still have not made time to try it. I think the HOM has had some impact, but our son is still mainly focused on sweets and carbs. I see now that I could have keyed into this program much more, to supplement the work on these things being done at school, at home." Another parent described that "We try to eat local foods, but it is not a requirement. We eat what we can from our small garden. We encourage our children to try new food."

Table 3. Importance of Knowing Where Your Food Comes From and Serving Local Foods

How important is:	**knowing where your food comes from**		**serving local foods at preschool**		**serving local foods at home**	
	n	**%**	***n***	**%**	***n***	**%**
Extremely important	6	71%	5	55%	4	62%
Very important	9		6		9	
Moderately important	6	29%	6	45%	5	38%
Slightly important	0		3		3	
Not at all important	0		0		0	
Total	21	100%	20 (one response left blank)	100%	21	100%

Discussion

This study adds to the literature by considering parent perspectives about nutrition behavior at school and at home. In this study, parents with a child enrolled in a campus preschool provided perspective about HOM for ECE practices at home, including procurement of local foods through Farmer's Market and CSA participation, gardening, and consumption habits. Consumption frequency among the ten HOM foods surveyed suggests that a variety of foods were served at home and that adults and children were likely eating the same foods. Despite HOM efforts to increase local food consumption, adults and children may not be eating HOM foods with the same frequency. Per HOM goals, this programming may still be related to increased exposure to these local foods which aligns with the well-cited strategy of repeat exposure to influence children's food preferences (Cooke, 2007; Dazeley & Houston-Price, 2015; Laureati et al., 2014; Wolfenden et al., 2012).

The least consumed HOM foods (summer squash, winter squash, beets, and lentils) could be less available or less familiar and accepted by children and adults, but it is noteworthy that lentils are the largest export crop in the state (Montana Department of Agriculture, 2018). One parent commented that "My child identified lentils in a dish and taught me that (sic) how lentils look like," thus, suggesting the HOM educational strategies contributed to children's knowledge of local foods and children brought this knowledge into the home. Impacts on children's knowledge and attitude of local foods have been similarly reported in K-12 HOM studies (Margolin et al., 2018).

Parents' limited familiarity with farm to school and varying consumption patterns for some HOM foods suggests challenges to successfully engaging parents, consistent with recent K-12 nutrition research findings (Ickes et al., 2016). Although parents in this study reported interest in procurement of local foods through farmer's market purchasing, CSA participation, and home gardening, food parenting research suggests that interest alone does not always promote children's healthy habits (Sano et al., 2019). Specifically, these findings may indicate variation in food parenting knowledge and skills to expose children to new HOM foods. One parent explained, "Everyone must try new foods at our house. We cook at home 6-7 nights per week." Encouraging mealtime experiences with local foods at home might help families overcome some of the challenges of incorporating HOM foods into their menus through repeated exposure, therefore, increasing consumption.

Limitations

Due to purposeful sampling, self-reported data collection, and small sample size, the study findings are limited to the study participants and are not generalizable. It is not known if more than one parent from the same household participated in this study. Of a total of 85 parents who received the survey request, twenty-one parents (25%) responded. Additional exploration is needed to generalize these exploratory findings to a wider population of parents and ECE

programs. Additionally, survey findings indicated potential areas where wording clarification in future research might capture a more precise understanding of parents' attitudes of local food as well as the frequency of procurement and consumption. For example, there was a wide distribution in reported beef consumption in this study, perhaps because some families consume beef-like wild game. One parent explained, "Most of our meat comes from hunting which was not included in this survey–while we eat no beef, we regularly eat elk." Another parent stated, "we eat elk and buffalo, not beef," potentially indicating they considered beef-like wild game when reporting beef consumption. The survey did not have an alternate opportunity to report wild game consumption.

Implications for Research and Practice

Based on the data collected, this study adds to the literature by providing a better understanding of parent and children's early eating patterns related to local foods and farm to ECE efforts. The understanding generated by this study could be used to provide more opportunities for parent and family engagement in early childhood contexts.

The Centers for Disease Control and Prevention (2015) offers a tri-fold approach to involving parents in K-12 school health: connect, engage, and sustain. According to the framework, connections with parents can occur through relationship-building opportunities such as extending invitations to attend school mealtimes and volunteering in food-related activities. Using this framework, sustained HOM for ECE efforts for parent engagement could include sending newsletters home and soliciting parent feedback to continually improve outreach.

Findings in this study indicate HOM for ECE may benefit from additional parent involvement, including establishing family cooking nights using local foods and inviting parent volunteers to prepare HOM for ECE meals and snacks for the classroom. Exposure to HOM foods in multiple settings may be supported by identifying strengths and reducing barriers for families to purchase or produce local foods within the context of their community (e.g., considering the length of the growing season, availability of local game, and knowledge of food preservation techniques).

Pilot research and HOM for ECE program development should be expanded to more-sites across the state. Parent survey questions should be clarified to explore what percentage of family food purchased and consumed is local (i.e., from gardening, hunting, or purchased through farmer's market, CSA, and grocer). Future research should test feasibility, acceptability, and efficacy of strategies to increase parent engagement and explore how these efforts can leverage parents' desires and attempts to connect with HOM for ECE with a larger and more diverse population.

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