

Community Supported Agriculture Strengthens the Family: Behaviors, Attitudes, and Resourcefulness

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Purpose

The purpose of this program was to connect families with limited resources with direct access to fresh fruits and vegetables in order to test whether removing barriers associated with accessing fresh fruits and vegetables improves family and individual healthy food behaviors, family routines, and resourcefulness.

Methods

Design

CSA boxes were provided to families of preschoolers attending Head Start and State Preschools throughout Placer County for 11 weeks from June through October 2016.

- CSA boxes provided at no cost
- Direct delivery of CSA to preschool site during child pick-up times
- Food demonstrations and tastings of produce and recipes
- Recipe Cookbook
- Nutrition reinforcement items

Sample

There were 96 families across six sites that participated in the program; 56 completed the survey. Demographic characteristics for survey participants are included in Table 1.

Table 1. Demographic characteristics of respondents.

Gender	78.6% Female 12.5% Male 8.9% Unknown
Parent Type	89.3% Birth Parent 1.8% Grand Parent 8.9% Unknown
Race/Ethnicity	71.4% Hispanic 12.5% White 1.8% Asian 1.8% Black 3.6% Multiple 8.9% Unknown
Language	62.5% Spanish 19.6% English 7.1% Multiple 10.7% Unknown

Methods

Measures

A self-administered retrospective pre- and post-test was given at the end of the 11-week period to complete at the site. Site supervisors were trained to explain the survey to participants. All surveys were completed within 7-10 days of distribution.

Nutrition Protective Factors

Nutrition Protective Factors were adapted from the Protected Factors Survey for this project. Twelve items were used to measure six behaviors on a 7-point scale ranging from Never (1) to Always (7) related to nutrition and health, and five attitudes on a 7-point scale ranging from Strongly Disagree (1) to Strongly Agree (7) related to health and accessing resources. Table 2 highlights sub-scales determined from exploratory factor analysis.

Table 2. Questions grouped into each of four constructs.

Scale Name	Questions
Family Routine Behaviors	<ul style="list-style-type: none"> • We eat dinner together as a family at least once per week. • Our children help in preparing and/or serving our meals. • In my family, we talk about what foods we like and don't like.
Family Healthy Behaviors	<ul style="list-style-type: none"> • When we shop for food we make purchases with good nutrition in mind. • We like to try new fruits and vegetables. • We include fruits and vegetables in our family meals.
Individual Attitudes about Food and Health	<ul style="list-style-type: none"> • I know what foods are nutritious for my family. • I am able to grow food for my family. • I am consuming more fruits and vegetables.
Resourcefulness	<ul style="list-style-type: none"> • If I have questions about what food is nutritious, I know where to get information. • If my family did not have enough food, I know where to go for help.

Results

Participants who engaged in the CSA box program reported higher family routine behaviors, family healthy behaviors, individual attitudes about food and health, and resourcefulness ($p < 0.001$), as described in Table 3. Additionally, 98% of participants reported the CSA produce boxes were useful for their family.



Sub-Scale	Mean (pre)	Mean (post)	t-value	df
Family Routine Behaviors*	5.274	5.863	-7.841	50
Family Healthy Behaviors*	5.843	6.386	-7.049	50
Individual Attitudes about Food and Health*	5.278	5.882	-8.310	50
Resourcefulness*	6.186	6.657	-5.101	50

* $p < 0.001$

Conclusion and Next Steps

Based on the positive, significant results of the retrospective pre- and post-test, the CSA produce box program is a viable avenue for increasing the access, availability, and consumption of fresh fruits and vegetables for families with limited resources. This program also shows support for collaboration across agricultural and nutrition programs to reach the local community for positive impact on health and beneficial family behaviors. In the future, this study could be strengthened by utilizing a control group, and investigating the relationships between economic impact and health impact of supporting local farms through CSA boxes.

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Images from left to right: recipe cookbook; tasting of CSA produce; preschooler at the CSA farm.