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Evaluating Communication Tools and Increasing Fruit and Vegetable Consumption in Vermont Head Start Classrooms

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INTRODUCTION

We designed a program for four Head Start classrooms that aimed to:

1) Provide classrooms a tool that would facilitate communication with families about nutrition,

2) Educate families about the MyMeal tool, and

3) Increase fruit and vegetable consumption by providing families with fresh fruits and vegetables

Fruit and vegetables are important components of a healthy diet, and sufficient consumption helps reduce the risk of developing cardiovascular disease, cancer, diabetes and obesity(1, 2). Eating behaviors during childhood are highly parentally influenced and function as the foundation for future eating patterns. Studies have shown that the extent to which fruits and vegetables are present and accessible in the home correlates with the amount of fruit and vegetables eaten by children (3).

METHODS

Participants were caregivers of students, ages 3-5, at Head Start schools in Addison County, Chittenden County, and Grand Isle County (Figure 1).

Participating schools included: Champlain Islands Parent Child Center, Mary Hogan School, Burlington Children's Space, and J.J. Flynn Elementary School.

Figure 1.

Education on food groups was done through the "My Meal" tool, teaching categorization of meals into major food groups.

Following in-class school instruction, caregivers of students took part in a baseline two-week home activity; in which they documented family dinners onto a MyMeal tracking sheet.

The intervention period began immediately afterwards, when parents were supplied a daily fruit or vegetable, to determine if access improved consumption.

MyMeal sheets were collected anonymously at the schools. The frequency of reported food group consumption was calculated and compared between pre and post-intervention periods

Daily school meals were illustrated for families with picture and text to increase communication and to demonstrate how to use the MyMeal sheet.

Post interview surveys were given to teachers to obtain data on experimental design and health communication methods.

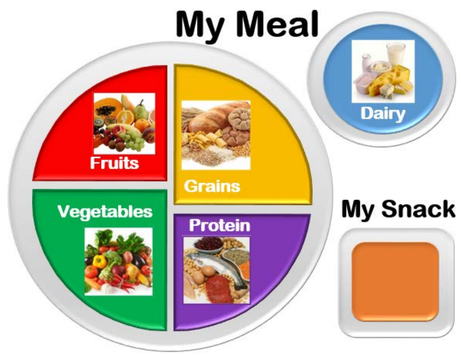

Figure 2. **MyMeal tracking sheet sample**

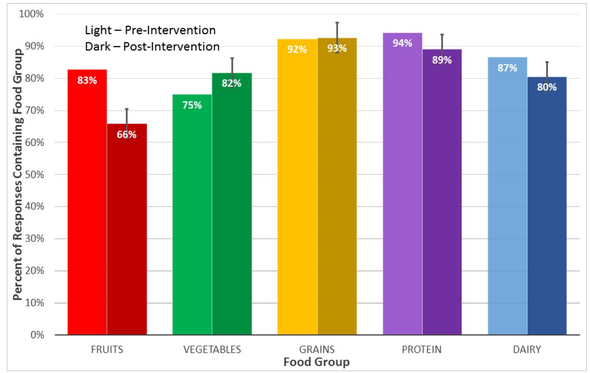

Figure 3. **Reported consumption by food groups pre and post intervention**

RESULTS

Due to a difference in reporting methods, Champlain Islands was excluded from the following results.

Total return rate for the MyMeal sheets was 19% both before and after the intervention.

When analyzing individual sites, there was no significant change in fruit or vegetable consumption.

Analyzing all three classrooms together, there was no significant change in vegetable consumption (Chi Squared = 0.866) and there was a significant decrease in fruit consumption (Chi Squared = 4.51).

Including Champlain Islands with the other schools, overall vegetable consumption increased significantly (Chi Squared = 8.31).

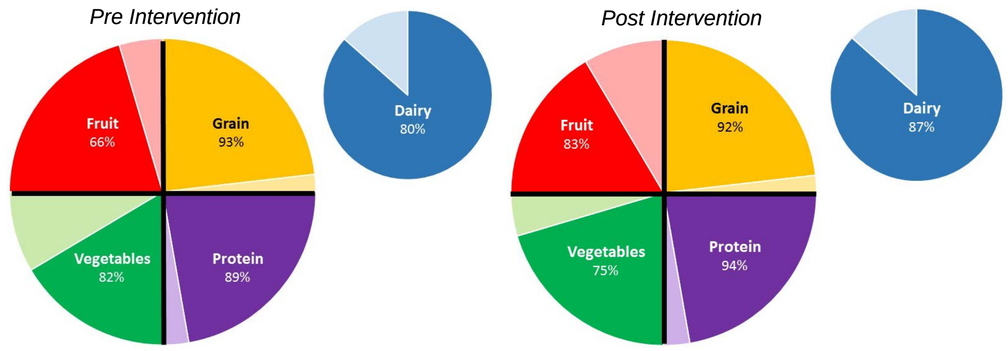

Figure 4. **Reported consumption by food group pre and post intervention represented as a MyMeal**

DISCUSSION

Communication between the schools and parents presented a significant barrier, indicated by the low response rate. There was significant variability of demographics and methods to carry out the project between sites.

Assumed communication barriers for include language/literacy challenges, and busy parent and teacher schedules. There were also communication challenges between the schools and outside organizations, including Head Start and the research group.

Increasing access to fruits and vegetables by providing on-site did not produce significant results. It can be inferred from our results that the MyMeal tool is not an effective communication tool, but we cannot rule out that increasing access increases fruit and vegetable intake because our return rate was quite low, limiting our ability to assess true eating habits.

Feedback from one site reflected concern about these same barriers. One teacher indicated communication with the parents and project organization was difficult. Asking parents and teachers to add more tasks to their already busy schedules proved challenging.

The response rate at Champlain Island Parent Child Center relied on teacher documentation, which decreased from 33% to 14% after the intervention. This data was omitted due to lack of parent involvement.

CONCLUSION

There is a need for improving communication between the Head Start Classrooms in Vermont and the families of the children they serve, as demonstrated by teacher feedback. Although our study did not produce any significant results, we were able to get school feedback on how to improve future studies.

Steps for future research include providing standardized take home instructions for parents, addressing parental language barriers, and improving coordination between the all the organizations involved.

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