



EFFECTS OF HARVEST OF THE MONTH (HOTM) CURRICULUM ON MEDIATORS OF CHILDREN'S VEGETABLE INTAKE



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Introduction

Problem: 40% of U.S. children eat the recommended amount of fruit and **7% eat the recommended amount of vegetables** (CDC, 2014).

Ramification: Low fruit and vegetable intake...

- Plays a role in development of cardiovascular disease and some cancers – the primary causes of death in U.S. (Boeing et al., 2012).
- Causes **1.7 million deaths** annually worldwide (WHO, 2015).

One solution: USDA's Farm to School (F2S) program which includes:

- Serving local farm produce in schools
- Classroom nutrition lessons
- School gardens
- Recipe tasting
- Physical activity
- Cooking lessons
- Farm field trips
- Produce harvesting

In 2011 - 23.5 million students in F2S + \$325 million spent locally by participating schools (USDA, 2012).



Hypothesis: Students who complete four HOTM classes will have increased intake of vegetables & mediators of vegetable intake.

Research objective: Evaluate effectiveness of HOTM in improving mediators of vegetable intake and actual intake.
Mediators = knowledge, preference, and self-efficacy

Participants

n=120, 4th grade students located in Half Moon Bay, CA (60 in control group and 60 in intervention group)

Materials and Methods

Pre-intervention

- Both groups took a validated survey addressing mediators of vegetable intake and reported vegetable intake.
- Students provided with cup of vegetables in classroom, allowed to eat if desired.
- Amount of vegetables consumed (in grams) recorded.

Intervention

- Four HOTM classes focusing on broccoli, carrots, spinach, and cucumbers over a two month period.

Post-intervention

- Same survey repeated and vegetable cups placed at desks.
- Measured differences in pre- and post-intervention survey responses of mediators and reported intake using paired t-test statistical analysis.
- Analyzed difference in weight (grams) of vegetables consumed both pre- and post-intervention.

References

1. Center for Disease Control and Prevention. (2014). *Vital signs: Progress on children eating more fruit, not vegetables*. Atlanta: U.S. Department of Health and Human Services. Retrieved from www.cdc.gov/vitalsigns/fruit-vegetables/
2. Boeing, H., Bechthold, A., Bub, A., Ellinger, S., Haller, D., Kroke, A., ... & Watzl, B. (2012). Critical review: Vegetables and fruit in the prevention of chronic diseases. *European Journal of Nutrition*, 51(6), 637–663.
3. U.S. Department of Agriculture. (2012). *Farm to school census, 2012*. Retrieved from www.fns.usda.gov/farmtoschool/census#/page/about?scroll=viz1
4. World Health Organization. (2015). *Global strategy on diet, physical activity and health: Promoting fruit and vegetable consumption around the world*. Retrieved from www.who.int/dietphysicalactivity/fruit/en/index2.html#

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