

Kids In Nutrition: Evaluating the Effectiveness of a Health Education Program

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Introduction

Cardiovascular disease, obesity, diabetes, and other non-communicable diseases have become increasingly prevalent across America in recent years. Previous efforts to combat this nation-wide problem at the youth level have proven successful for programs in a number of communities.¹

Kids In Nutrition (KIN) was founded two years ago and seeks to proactively approach the rising rates of preventable disease. Volunteers from UCSB facilitate learning through a student-run, free of charge health education program for elementary school students in the Santa Barbara Unified and Goleta Union School Districts. The curriculum focuses on teaching basic nutrition and exercise and aims to inspire and empower the younger generation to lead active and healthy lives.

Hypothesis: Programs such as Kids In Nutrition have reinforcing effects on general health knowledge and self-reported food preferences amongst elementary school students.

Results

Data Collection: Data from the health knowledge assessment was inputted with Boolean variables, assigning 0 values to more healthy selections and 1 to less healthy choices.

Data from the food preference assessment was inputted using the Overall Nutritional Quality Index² (ONQI), developed by nutrition and public health scientists independently of food industry interests.

Data Analysis: For the health knowledge assessment (**Figure 1**), there were significant differences found between the scores of the pre- (M = 2.608, SEM = 0.168) and post-test (M = 1.528, SEM = 0.132) conditions; $t(124) = 6.960, p < 0.001$.

In the food preference assessment (**Figure 2**), there were also significant differences found between the scores of the pre- (M = 375.6, SEM = 11.6) and post-test (M = 419.9, SEM = 13.0) conditions; $t(120) = -3.709, p < 0.001$.

There was no significant effect of grade in the food knowledge assessment ($F(2, 122) = 2.996, p = 0.807$) or the food preference assessment ($F(2, 118) = 3.072, p = 0.508$).

Discussion

The Kids In Nutrition program curriculum is effective at improving elementary school student's health knowledge and self-reported food preferences, regardless of age. Thus, early interactive health education programs may be able to assist in achieving public health goals. To contribute to this effort, the Kids in Nutrition program plans to expand across America and utilize data from each region, with increased outreach efforts to address nutritional discrepancies found in underserved areas.

Literature Cited

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2. Katz DL, Njike VY, Rhee LQ, Reingold A, Ayoob KT. Performance characteristics of NuVal and the Overall Nutritional Quality Index (ONQI). *Am J Clin Nutr* 2010; 91:1102S-8S.

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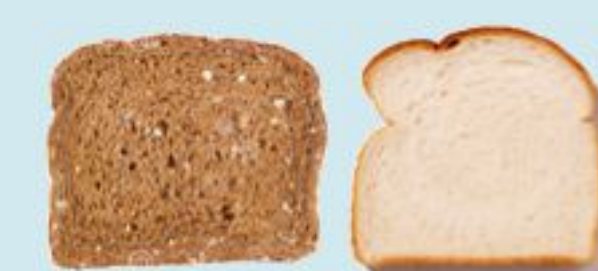
Methods

Subjects:

Assessment Type	Participant Grade			Total
	K	1	3	
Health Knowledge	38	29	58	n = 125
Food Preference	39	28	54	n = 121

Research Model: Pre- and post-tests, including health knowledge and food preference assessments, were administered on the first and last day of the seven week program.

Health Knowledge:



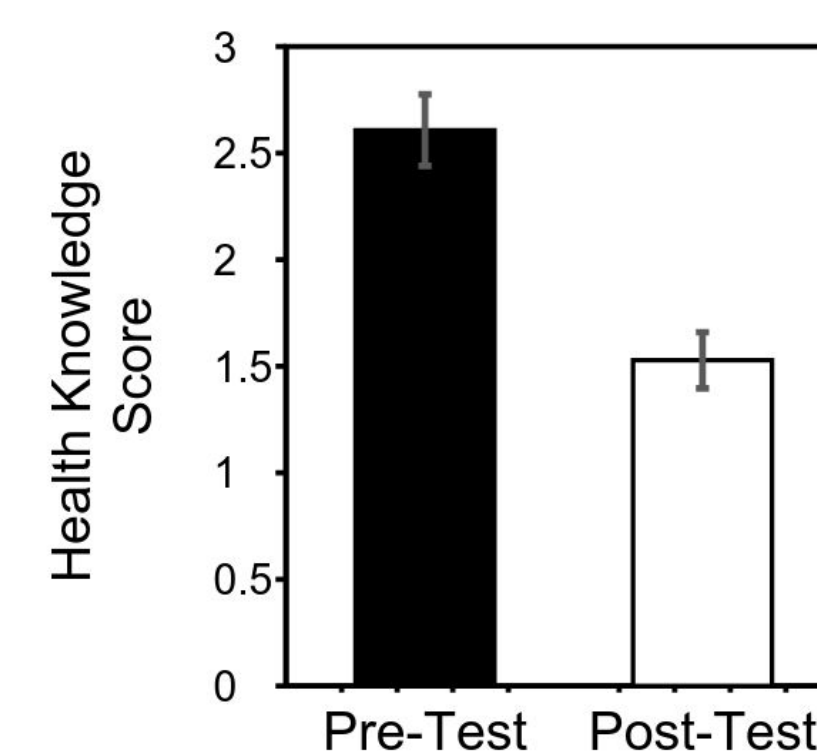
8 tasks

Food Preference:



9 tasks

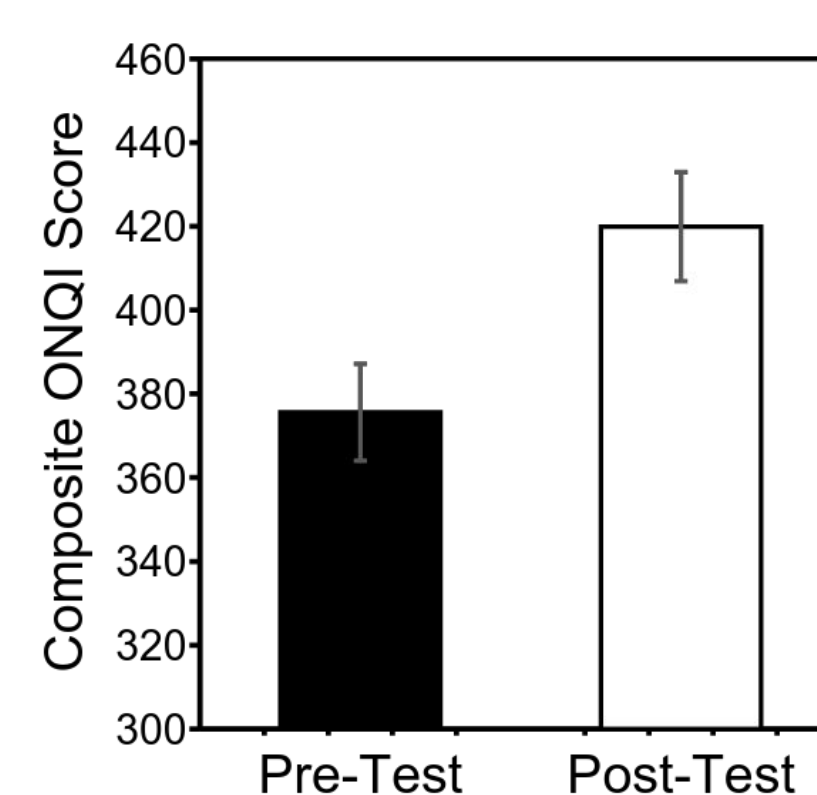
Figure 1. Health Knowledge Assessment



Error bars indicate Standard Error of the Mean (SEM), n = 125.

Lower composite scores correspond to an increase in objective health knowledge.

Figure 2. Self-reported Food Preferences Assessment



Error bars indicate Standard Error of the Mean (SEM), n = 121.

An increase in composite ONQI score corresponds to preferences with greater nutritional value.

For further information

Please contact angelashields@kidsinnutrition.com. More information about the program is available online at www.kidsinnutrition.com.