Canned Food Choices of College Students Using the NuVal® Nutrient-Profiling System

Stephanie Detoya, B.S., Gail Frank, Dr.P.H., Virginia Gray, Ph.D., Cheryl Rock, Ph.D.

Department of Family & Consumer Sciences
College of Health & Human Sciences, California State University Long Beach

Introduction

- There is limited research on how consumers are determining the nutritional value of a food product and/or use available nutrition information to select foods (Grunert & Wills, 2007; Williams, 2000).
- To avoid confusion, food labeling systems need to be simplified (Chiuve, Sampson, & Willett, 2011).
- The NuVal® Nutritional Profiling System provides a simplified nutrition scoring guide for consumers, generating scores from 1 to 100, with a higher number indicating a higher nutritional value in a product (Katz, Nippe, Rhee, Borenstein, & Ayoko, 2015).
- Understanding nutrition food labels is important to help consumers follow the government’s general dietary guidelines, which are 1.5 to 2 cup equivalents of fruits and 2 to 3 cup equivalents of vegetables (Rathnaratne et al., 2006; NgC, 2015).
- Canned food consumption may be a viable, nutritious option for cost-conscious individuals to meet required amounts of fruits and vegetables all year-round (Ader & Anschal, 2016).

Research Question

Can students accurately determine the healthiest canned food when asked to choose their preference from common canned fruits and vegetables?

Hypotheses

- H0 1: There is no significant difference in mean percent correct score by type of canned food (canned fruits vs. canned vegetables).
- H0 2: There is no significant difference in mean percent correct score by gender of the respondent (by type of canned food).
- H0 3: There is no significant difference in mean percent correct score by age of the respondent (by type of canned food).
- H0 4: There is no significant difference in mean percent correct score by academic major of the respondent (by type of canned food).
- H0 5: There is no significant difference in mean percent correct score by income of the respondent (by type of canned food).

Methods

Sample Population (n = 190)
- Convenience sampling
- Undergraduate students from general education courses offered at California State University Long Beach (CSULB) in fall 2017
  - Introductory Nutrition (n = 5 sections)
  - Consumer Affairs (n = 4 sections)
- Procedures
  - Permission from instructors granted
  - IRB approval
- Measures
  - 5 popular canned food products selected at local grocery stores in Long Beach, California and Pittsburgh, Pennsylvania (n=2 canned fruits; n=3 canned vegetables)
  - NuVal® score was determined for each of these products by scanning each canned item using the NuScan app.

Data Collection

- 9-item questionnaire using Qualtrics (2017 Version, Qualtrics, Provo, UT)
- Students were asked to rank, from one to three (3 being the highest score), which canned food item they perceived as the most nutritious.

Results

- A total of 190 students completed the online survey.
- A majority of the respondents were:
  - Female (n = 129, 68.6%)
  - Ages 18 to 45 years old (n = 143, 75.3%)
  - Non-health related majors (n = 120, 67%)
  - Annual income less than $10,000 per year (n = 111, 68.9%)
- More accurate responses in canned fruits than in canned vegetables.

Methods

- Statistical Package for Social Sciences (SPSS; IBM Corp, Armonk, NY, 2016) was used to input and analyze the data.

Conclusion

- It is uncertain that consumers are able to use the available nutrition information on product labels and interpret them correctly to select healthier food options.
- Being unable to properly interpret nutrition values of these canned products can result to poor food choices.
- This research study was similar to other studies that have questioned consumers’ ability to comprehend and interpret food labels (Cookson & Stockley, 2002; Gardner, Ni Mhuirche, Chen, & D drei, 2009; Kim & Kim, 2009; Roberts et al., 2012).
- Further research is warranted to show trends in accuracy of choice of nutritious canned food items among gender, age, academic major, and income groups of college students.
- More research studies are needed to understand the associations of nutrition knowledge, judgment accuracy, and food choices among consumers.

Implications

- It is difficult to pinpoint specific nutrients and compare the nutritional value of food products.
- Everyone can benefit the NuVal® Nutritional Scoring System
  - Quick
  - Simple (from 0-100)
  - Easy
  - Convenient
- NuVal® helps consumers make decisions with confidence in navigating and selecting healthier food options.

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For more information

Please contact stephaniedetoya@hotmail.com or Dr. Gail Frank at gail.frank@csulb.edu for more information.