Canola vs. Corn: Angwin Food Pantry Customers

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Abstract

The selection of "healthy" vs. "unhealthy" cooking oil by Angwin Food Pantry customers was evaluated. Twenty-nine customers were observed over a two week period and choice of oil was compared with each customer's income, education, and ethnicity. While education marginally affected oil selection, income and ethnicity did not.

Introduction

In America, choices influenced by income, education, and ethnicity can be seen in a variety of settings. Every day families are faced with the choice of which foods to consume. One such choice is which type of cooking oil to use. An individual's choice of cooking oil can directly affect how healthy or unhealthy a meal is. Fazioli (2006) described canola oil as one of the top choices for healthy cooking. He also explained that although corn oil was the most versatile cooking oil, it ranked lower on the health scale than canola oil. Unfortunately, not everyone who would prefer to eat healthy can afford the added expense.

According to Darmon, Ferguson, and Briend (2002) choosing low cost foods usually leads to unhealthy choices. Meat, fish, and eggs were among the most costly foods to buy, and produce, cereal, and dairy products were somewhat costly. Foods high in fat and sugar were found to be priced significantly lower than other foods. Even though meat was one of the highest priced foods, low-income families consistently chose it because it was considered fresh (Lutz, Smallwood, & Blaylock, 1995).

Going further, Ree, Riediger, and Moghadasian (2007) found that individuals with higher levels of education, not only higher income, made healthier food choices. They also found that the more education a person had the more likely they were to read labels and distinguish between which foods were healthy and which were not.

In addition, Larson and Story (2009) found that food choice was influenced by enculturation, which includes one generation shaping the next generation's perception of healthy and unhealthy food. The purpose of this study was to determine if factors such as income, education level, and ethnicity were related to Angwin Food Pantry (AFP) customer's choice in canola oil (healthy) or corn oil (unhealthy).

Method

Participants

Participants were 29 customers, ages 29-65, who selected cooking oil while shopping at the AFP. They had a variety of educational backgrounds (0-12 years/no diploma—24, 83%; high school diploma/GED—4, 14%; some college—0, 0%; AS/BS degree— 1, 3%), income levels ($0-$500—10, 34%; $501-$1,000—3, 10%; $1,001-$1,500—6, 21%; $1,501+—10, 34%), and came from two ethnic backgrounds (Hispanic—28, 97%; White—1, 3%).

Materials

AFP customer records were used to identify the income, education level, and ethnicity of each participant. A separate data sheet was used to record each participant's selection of oil.

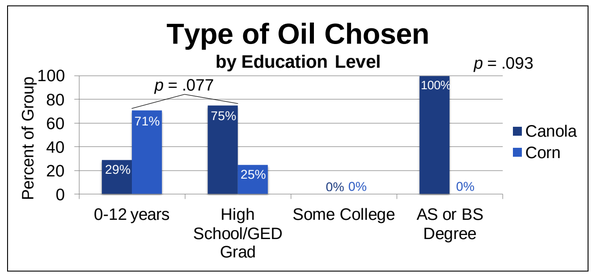
Procedure

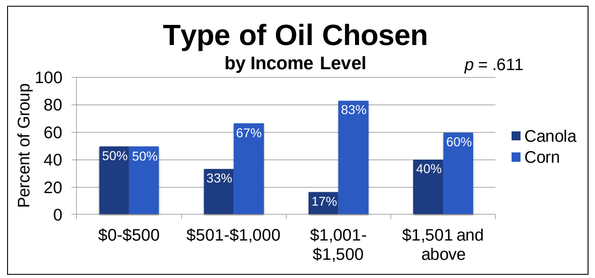
Over two nights of operation, participants were observed shopping for food at the pantry. Two types of cooking oil (canola, healthy; corn, unhealthy) had been shelved side by side, and customers were able to select a bottle of their choice. A researcher recorded the type of oil chosen and, after the customer left the pantry, replaced the bottle of oil—swapping oil location to control for the potential confounding variable of product placement. After restocking was completed the next customer was allowed to enter the pantry.

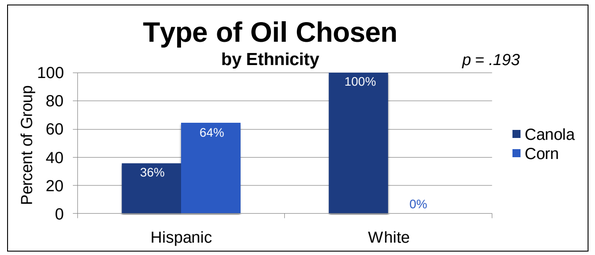
Results

Choice of cooking oil (canola, healthy; corn, unhealthy) was marginally affected by education, but it was not affected by level of income or ethnicity: a) education, $\chi^2(2, N = 29) = 4.75$, $p = .093$, b) income, $\chi^2(3, N = 29) = 1.82$, $p = .611$, and c) ethnicity, $\chi^2(1, N = 29) = 1.70$, $p = .193$. This result supports Ree, Riediger, and Moghadasian's (2007) finding that higher levels of education increase the likelihood that customers will choose healthier cooking oil.

We conducted follow-up one sample chi square analyses to evaluate pairwise differences among the three education level groups, controlling for Type I error across tests using the Holm's sequential Bonferroni approach. Using these controls, we found a marginal difference in choice of oil between elementary and high school, χ^2 (1, N = 28) = 3.14, p = .077, but no difference between elementary and college, χ^2 (1, N = 25) = 2.21, p = .137, or high school and college, χ^2 (1, N = 5) = .313, p = .576 educated customers.







Discussion

We were not able to support Darmon, Ferguson, and Briend's (2002) or Larson and Story's (2009) findings that income and enculturation influence food choice to cooking oil, but were able to add marginal support to Ree, Riediger, and Moghadasian's (2007) finding that individuals with higher levels of education make healthier food choices.

Future research could focus on different types of food and food preferences among Hispanic customers who constitute 98% of people served by the AFP. In addition, having an adequate volume of food does not guarantee proper nutrition. Balancing the provision of adequate food volume and proper nutrition is an ongoing challenge. Our study highlights the potential benefit of pantries investing in health literacy efforts.

References

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