



## Research report

# Relationships among grocery nutrition label users and consumers' attitudes and behavior toward restaurant menu labeling



Mary G. Roseman<sup>a,\*</sup>, Kimberly Mathe-Soulek<sup>b</sup>, Joseph A. Higgins<sup>c</sup>

<sup>a</sup>University of Mississippi, 210 Lenoir Hall, University, MS 38677, United States

<sup>b</sup>Virginia Tech University, 362 Wallace Hall, Blacksburg, VA 24061, United States

<sup>c</sup>University of Kentucky, Cambridge Place Nursing Home, Lexington, KY, United States

## ARTICLE INFO

## Article history:

Received 24 June 2013

Received in revised form 20 August 2013

Accepted 26 August 2013

Available online 3 September 2013

## Keywords:

Restaurants

Restaurant menu labeling

Nutrition

Obesity

Grocery nutrition labels

## ABSTRACT

In the United States (US), based on the 2010 Affordable Care Act, restaurant chains and similar retail food establishments with 20 or more locations are required to begin implementing calorie information on their menus. As enacting of the law begins, it is important to understand its potential for improving consumers' healthful behaviors. Therefore, the objective of this study was to explore relationships among users of grocery nutrition labels and attitudes toward restaurant menu labeling, along with the caloric content of their restaurant menu selection. Study participants were surveyed and then provided identical mock restaurant menus with or without calories. Results found that participants who used grocery nutrition labels and believed they would make healthy menu selections with nutrition labels on restaurant menus made healthier menu selections, regardless of whether the menu displayed calories or not. Consumers' nutrition knowledge and behaviors gained from using grocery nutrition labels and consumers' desire for restaurants to provide nutrition menu labels have a positive effect on their choosing healthful restaurant menu items.

© 2013 Elsevier Ltd. All rights reserved.

## Introduction

Globally, in recent years, restaurant nutrition labeling has received considerable media, legislative, and industry attention. In the United States (US), like other developed countries, much of the interest has been due to an increase in obesity in adults and children over the last 20 years (Centers for Disease Control, 2012), while the amount of food dollars spent by consumers away from home during a similar period increased (National Restaurant Association, 2013). Adding to the complexity of the issue, research continues to be contradictory regarding a direct relationship between fast food consumption and obesity; some studies show a relationship between fast food usage and obesity or weight gain (Boutelle, Fulkerson, Neumark-Sztainer, Story, & French, 2007; Jeffery, Baxter, McGuire, & Linde, 2006; Maddock, 2004; Marlow & Shiers, 2012; Thompson et al., 2003), while others fail to establish a direct link (French, Harnack, Toomey, & Hannan, 2007; French, Story, Neumark-Sztainer, Fulkerson, & Hannan, 2001). Previous studies have shown a lack of healthfulness in some restaurant menu items. For example, an Australian study of fast food restaurants found that most breakfast items have high sugar and saturated fat, and chicken items are highest for total fat and sodium

(Dunford, Webster, Barzi, & Neal, 2010). In efforts to combat the growing trend of obesity in the US, federal, state and local government initiatives have been debated with various forms of implementation. The introduction of New York City's restaurant trans fat regulation resulted in a statistically significant decrease in the trans fat content of purchases by consumers at fast-food chains without a commensurate increase in saturated fat (Angell, Cobb, Curtis, Konty, & Silver, 2012). Despite these initiatives, there is still a lack of research in the area of consumer attitudes and behaviors toward nutrition labeling of restaurant food.

Nutrition labeling was first introduced in the US as part of the Nutrition Labeling and Education Act (NLEA) of 1990 to disclose information on food such as calories, fat, cholesterol, carbohydrates, sodium, sugar, and fiber (American Heart Association, 2009) in an attempt to help improve consumer dietary choices (Roberto, Schwartz, & Brownell, 2009). Initially, the NLEA bill primarily focused on disclosure of nutrition information on packaged food sold in convenience and grocery stores and excluded restaurants and other retail establishments.

In response to growing support by public health experts, beginning in 2006, local US cities began adopting menu labeling requirements on chain restaurant menus and menuboards (King County Public Health, 2010; New York City Board of Health, 2006). Initiated in 2010, some major national restaurant chains such as Panera Bread Company and McDonald's began to voluntarily post calories on their menuboards at company-owned stores (Baertlein, 2012;

\* Corresponding author.

E-mail address: [mroseman@olemiss.edu](mailto:mroseman@olemiss.edu) (M.G. Roseman).

Panera Bread, 2012). On a federal level, in 2010, the Affordable Care Act was signed into law, amending section 403(q) of the Federal Food and Drug Act. As amended, section 403(q) requires restaurant chains and similar retail food establishments operating as part of a chain under the same name with 20 or more locations to provide calorie information at the restaurant's point of purchase, and to provide, upon customer request, additional written nutrition information for standard menu items (US Department of Health & Human Services, 2010).

The effects of restaurant menu labeling of encouraging individuals to choose healthier menu items have been mixed. Some research suggests that consumers may not want to be exposed to a menu item's nutrition information or may overstate their use of nutrition labeling (Grunert & Wills, 2007). Other studies on consumer behavior before and after the implementation of restaurant menu labeling in the US have found no significant change in the caloric level of menu purchases (Elbel, Gyamfi, & Kersh, 2011; Finkelstein, Strombotne, Chan, & Krieger, 2011; Harnack et al., 2008), while some studies found a caloric reduction between pre- and post-treatment phases (Chu, Frongillo, Jones, & Kaye, 2009) and fewer calories by those viewing nutrition information when compared to those who did not (Bassett et al., 2008). Individuals have also expressed concern that nutrition labeled menus provide a feeling of judgment, and because of this they feel anxiety when ordering (Jones, 2009). Nutrition labeling has led to some other types of changes in restaurant environments, such as a decrease in encouragement to overeat or eat unhealthily, but limited research shows they have not led to an increase in identifying or providing more-healthy options (Saelens et al., 2012).

Therefore, the present study explored the effects of restaurant menu labeling information on consumer buying behaviors. Specifically, this paper explored relationships between consumers' usage of grocery nutrition labels and restaurant menu labels. In addition, it studied consumers' menu selection behavior when a restaurant menu provides or does not provide caloric information.

## Methods

### Research design

The methodological framework for this study consisted of two experimental groups who were provided a short survey and one of two identical mock restaurant menus except for the inclusion of calories or not. Participants for this study were recruited from a high pedestrian downtown street corner of a medium size US city (population around 300,000). Prior to conducting the research, the study was approved by the University of Kentucky IRB, which allowed an informed verbal consent by respondents. Data were collected during warm weather, high foot traffic months: June–November 2010 and May–August 2011. Varied hours were used to collect the data: primarily from 11 a.m. to 2 p.m. and 4 p.m. to 5 p.m.

First, six survey questions were administered to each participant regarding knowledge, habits, and opinions on restaurant menu labeling and grocery nutrition labeling, followed by three demographic questions, age, weight, and height, with demographic responses optional due to the informed verbal consent. The second page of the survey featured instructions and an example on completing the menu portion of the survey. Each menu was identical except for including or not including calorie information; seven identical menu items were listed that are often found at major fast food chains (i.e., McDonald's, Burger King, Wendy's), along with a description of the content of each menu item and options for side items or condiments. The entrées listed were: chef salad, crispy chicken salad, fried fish sandwich, grilled chicken sandwich with

lettuce and tomato, crispy chicken sandwich with lettuce and tomato, hamburger with lettuce and tomato, and bacon cheeseburger with lettuce and tomato. For sandwich entrées, the menu included a choice of small fries, medium fries, or no side item; for salad entrees, a choice of fat-free ranch dressing, ranch dressing, or no dressing. The menu portion of the survey requested participants to mark their first choice entrée and side item if the menu was presented to them in a restaurant. As previously mentioned, every other participant's menu contained calorie information for each of the seven menu items. Calorie content was the only nutrition information included since the Federal Food and Drug Act, section 403(q), only includes calorie content (US Food, 2013a).

On the menu, the calorie content information was displayed in the same size and font type as the description of the menu item so as not to over or under emphasize the information. FDA recognized in developing the law that menus and menu boards come in a variety of sizes; therefore, it was deemed inappropriate to require a specific type size and font for all menus and menu boards but rather a clear and prominent display of the information (US Food, 2013b). Menu prices were not included since it was not a variable for this study and the researchers did not want price to influence participants' purchase decisions. Prior to fielding the study, the researcher pre-tested the survey instrument using graduate students from the local university and employees at a local hospital in order to detect any problems and enhance wording.

### Data collection

To randomize participants, the researcher stood to the east and asked the first person approaching if they would be interested in participating in the study. Once a participant was obtained, the researcher turned to the south, then west, then north, recruiting participants in this same manner. This randomized process was continued, repeating the pattern from east to south to west to north in order to avoid biasing the recruitment of participants until recruitment was completed. Height, weight, and age were the only demographic questions asked on the survey in order to calculate BMI and to determine that each participant was 18 years of age or older. Other demographic information was not gathered in order to expedite conducting the survey in a high pedestrian area.

### Statistical analysis

Prior to conducting the research, each menu item was entered into Data Analysis Plus 9 (9th edition) to obtain accurate calorie content. For this study, three of the six survey questions were examined: (1) Do you want to see nutrition information (for example, calories) on menus in restaurants and fast food locations? (2) If you shop at a grocery store, do you look at the nutrition labels on packaged foods? (3) Do you believe you will make healthier selections when nutrition information (for example, calories) is provided on restaurant menus?

Collected data and the caloric values of each menu item were entered into, and analyzed with SPSS v 21.0. To ensure not to violate the assumptions of the two-way ANOVAs used in the analyses, tests of homogeneity were conducted to determine that the error variance of the dependent variable was equal across groups and were supported ( $p > 0.05$ ).

## Results

A total of 304 participants 18 years of age or older took part in the study. Two surveys were determined ineligible because the participants failed to complete the menu selection portion of the study, resulting in a total of 302 respondents. One hundred fifty-

Download English Version:

<https://daneshyari.com/en/article/7310843>

Download Persian Version:

<https://daneshyari.com/article/7310843>

[Daneshyari.com](https://daneshyari.com)