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Research report

Using student opinion and design inputs to develop an informed university foodservice menu

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ABSTRACT

The potential for Universities and Colleges to be settings that promote health and wellbeing has become the subject for debate where the role of foodservice has been acknowledged as influential. The aim of this research was to evaluate an effective design to promote healthy selections from university foodservice menus. The research was designed around a grounded theory approach utilizing semiological prompts based on different existing nutrition labeling schemes. A total of 39 students (17 male, 22 female) participated in seven focus groups at Montclair State University, US. The participants of this study clearly called for nutrition labeling on college menus and a prototype design had been agreed. The students also itemized five nutrients they wanted listed in a Traffic Light system of colors and then quantified on the menu: calories, sodium, sugar, fat and carbohydrates, plus beneficial ingredients or nutrients for display in menu icons. The nutrients and display order varies somewhat from industry and government standards, though the student recommendations are suggestive of common understandings of published nutrient guidelines. Students have a stake in how menu information is presented on campus and their opinions could positively impact the general selection of healthy foods.

Introduction

Universities represent an important setting for promoting health where the foodscape can facilitate and support healthful behavior. However, there is cause for concern over the dietary and nutrition practices of university students. High percentages of this population have been found to be overweight and engaged in less than healthy dietary habits. This includes not meeting the recommended intake amounts for fruits, vegetables, fiber, whole grains, calories, saturated fats and sugars (American College Health Association, 2011; Byrd-Williams, Strother, Kelly, & Huang, 2009; Greaney et al., 2009; Rose, Hosig, Davy, Serrano, & Davis, 2007). University foodservices offer a significant opportunity for health promotion as eating patterns accrued may carry over into later life (Hoefkens, Lachat, Kolsteren, Van Camp, & Verbeke, 2011).

The effect of menu labels and symbols for the promotion of healthy meal choices has been recently examined in the literature. However, the findings have been modest, ineffective or inconclusive. A number of attempts have been made to improve public health through nutrition labeling of food products where previous research has found a link between readers of nutrition labels on pre-packaged supermarket groceries and dietary health (Kozup, Creyer, & Burton, 2003). In 2012, the Institute of Medicine (IOM) released recommendations for front-of-pack (packaged food) rating systems and symbols that call for simple to understand food labels, with interpretive information for guidance that can be communicated by easily remembered names and symbols. The IOM further determined that the most critical nutrients to be listed on these labels are in respective order: calories, saturated and trans fats, sodium and added sugars (IOM, 2012). Mixed findings in the literature suggest that attractiveness, ease of use, and the clear presentation of information are the consumers' most preferential attributes for nutrition labeling formats (Cranage, Conklin, & Lambert, 2004; Grunert & Wills, 2007). In addition, findings suggest the provision of nutrition information at the point-of-sale, over referrals to pamphlets or websites, is a more efficient way to facilitate individualism in the meal decision process (Cranage et al., 2004).

Different classifications of nutrition labels have been presented in the literature generally based on their ease of use and understanding in balance with ostensive consumer needs to have detailed nutrient data (Hoefkens et al., 2011). A number of nutrition labeling formats for packaged food products are already in use, of which versions have been adapted for use in foodservice environs (Nordic Council of Ministers, 2011; Nutrition Australia, 2012; Pettigrew, Pescud, & Donovan, 2011). Some university foodservice operations (including the campus foodservice of the present study) provide nutrition information on their menus

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(Freeman & Conners, 2011). In 2010, the Grocery Manufacturers of America (GMA) and the US Food Marketing Institute (FMI) released the Facts-Up-Front labeling system for food products. These labels include four basic icons for nutrients to limit, in respective order: calories, saturated fat, sodium, sugars and up to 2 of a possible 8 "nutrients to encourage," placed linearly in cylindrical shapes. The basic icons include quantitative numerical daily values as well as percentages (Roberto et al., 2010; Grocery Manufacturers Association, 2010).

Health logos, or simple icons representing a healthy food choice, have also been advocated for being simple to read and, as such, more suited for making a quick product decision (Hodgkins et al., 2011). This includes the Nordic Keyhole, which is used jointly as a nutrition label with the provision of nutritional facts in Norway, Sweden and Denmark. The Keyhole is assigned to food products that are deemed to meet thresholds for less or healthier fats, less sugar, less salt and more fiber and wholegrain. A version of the Keyhole is currently available for use in restaurants, canteens and cafes (Nordic Council of Ministers, 2011). The Healthy Choice symbol is used in a variety of countries, including Belgium, Brazil, Germany, and Israel, to identify an overall healthy food item based on levels of fat, sugar, salt and fiber (Choices International Foundation, 2012). A number of international heart symbols are currently in use to identify food products that promote coronary health. For example, the American Heart Association's (AHA) Heart-check mark is given to food products with ascribed healthy properties (AHA, 2011). Similar criteria are used for the heart of the British Heart Foundation (British Heart Foundation., n.d.), the Parempi Valinta of Finland (Sydänmerkki-tuotteet., 2012), and the Canadian Health Check (Heart & Stroke Health Check Program, n.d.). The US National Heart, Lung and Blood Institute categorizes some foods as "Whoa," "Slow," and "Go" based on caloric and nutrient density, and fat and sugar content, though no specific labeling system has been developed (Miller, Drewnowski, Heaney, King, & Kennedy, 2009; National Heart & Blood Institute, 2012). A Five-A-Day symbol, developed by the UK National Health Service, is used for the promotion of five servings of fruits and vegetables per day (National Health Service, 2012).

The Traffic Light labeling system originally developed by the UK Food Standards Agency (and its various permutations including the Wheel of Health and Green Light, Eat Right – Feunekes, Gortemarker, Willems, Lion, & van den Kommer, 2008; Nutrition Australia, 2012), uses green, yellow and red colors to denote, in respective order, foods that are healthy to eat, okay to eat and foods that are not so healthy. The scheme typically only refers to levels of fat, sugar and sodium in foods (Roberto et al., 2010; Miller et al., 2009). There also is a variety of industry and foodservice symbols and adaptations available in the field for promoting individual nutrient properties.

Research has shown that some of the aforementioned labeling systems can be confusing or ineffective, particularly for college students (Hoefkens et al., 2011). While it has been argued that a standard nutrition-labeling system could have an impact on health, this impact may be mitigated if consumers cannot interpret the information (Finkelstein, French, Variyanet, & Haines, 2004; Sharf et al., in press). Research findings have pointed to a disadvantage of quantitative data labeling systems (such as Facts-Up-Front): the consumer often feels time constraints and lacks the skills necessary for processing nutrient information (Hoefkens et al., 2011). In addition, scholarly opinion has been skeptical of food industry nutrition labeling initiatives and the reluctance of industry to embrace government supported recommendations and labeling designs. It has been suggested that the industry wants to stay away from negative labels that discourage consumers from buying particular food products (Nestle, 2012; Pettigrew & Donovan, 2011). Research conducted on general consumers and students demonstrate that provision of overall health claims on food products without supporting detail, often elicited feelings of mistrust, in particular by student consumers. Though it has been reported that a majority of college students desire to have nutrition information on dining hall menus, there may be an underlying distrust of the accuracy and truthfulness of nutrient labels (Chan, Patch, & Williams, 2005; Hodgkins et al., 2012; Kolodinsky, Green, Michahelles, & Harvey-Berino, 2008; Martinez, Roberto, Kim, Schwartz, & Brownell, 2012; Mirsa, 2007). The Traffic Light system has been reported to be more effective than percentage guidelines of nutrient amounts and overall health labeling systems (Balcombe, Fraser, & Di Falco, 2010; Feunekes et al., 2008; Kelly et al., 2009; Lobstein & Davies, 2008). The ostensive advantage of this labeling concept is its ability to overcome the difficulties consumers have in assessing an overall nutrition picture within the typically short time allocated for a consumption decision (Pohlmeier, Reed, Boylan, & Harp, 2012). Grunert and Wills (2007) suggest three attributes nutrient labels need to have in order for consumers to best utilize the information: The label must be easy to use, include informed nutrition information and it must not coerce the consumer into certain types of behavior.

Federal US legislation has been enacted to encourage healthy menu selections through the Patient Protection and Affordable Care Act 2010, which requires restaurant chains with more than 20 outlets to postcalories counts on menus, drive through displays and vending machines for all the food items that they sell (Peregrin, 2010). Research findings and scholarly commentary on the effect of nutrient labeling schemes on healthy meal selection in college foodservice venues have been encouraging (Conklin, Lambert, & Cranage, 2005; Cranage et al., 2004). Recent menu strategies to promote healthy choices include nutrient labeling and the use of menu icons (Cranage et al., 2004; Downs, Loewenstein, & Wisdom, 2009; Harnack & French, 2008; Hwang & Lorenzen, 2008; Jones, 2009; Nutrition Australia, 2012). Interaction between health claims and quantified nutrition data on menus has been shown to be significant, demonstrating the potential of menus to help consumers make healthy food choices (Kozup et al., 2003).

In a recent study, the majority of college students surveyed reported that nutrition information sometimes, often or always affects their food choices (Martinez et al., 2012). In college foodcourt settings data on calories and fat were the nutrients of greatest concern to students (Kolodinsky et al., 2008). While caloric information specifically on foodservice menus could positively impact healthy menu selections (Cranage et al., 2004), there appears to be a compound effect when calorie information is displayed together with respective recommended daily consumption percentages (Roberto, Larsen, Agnew, Biak, & Brownell, 2010). However, studies done in the UK suggest that making calorie counts more visible does not seem to have a significant impact on restaurant food purchases, where information is not seen by two-thirds and ignored by more than half of those who do observe the nutrition information (Denby & Loades, 2010). Findings from an investigation in catering facilities implemented on behalf of the UK Food Standards Agency, similarly suggests that calorie data was found most useful when it is clearly visible but use, and therefore, influence and impact on food choice was low (BMRB Social Research, 2009). The menu has been described as being one of the greatest merchandizing opportunities (Bowen & Morris, 1995; McCall & Lynn, 2008). It is a non-competitive advertisement that fundamentally informs the meal-selection decision, which follows almost immediately. It is, therefore, potentially a very powerful tool for the promotion of healthy eating. However, consumers are having difficulty understanding nutrient labels where they are currently marketed and particularly where foodservice products are sold (Hodgkins et al., 2012; Rothman et al., 2006; Hoefkens et al., 2011). While it has been reported that information contained in