

Effects of Health Guidelines on Fast Food Restaurant Advertising: Two-sided Messages, Who Responds and How

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November 2010

The authors gratefully acknowledge the financial support provided by the Mendoza College of Business at the University of Notre Dame, and the technical assistance provided by Kevin Ritt.

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ABSTRACT

As obesity rates have increased worldwide, there has been a concurrent increase in the number of non-home prepared meals consumed. Since many argue that these meals are less nutritious than food prepared at home, the consumption of food not prepared at a home has been hypothesized as a cause of obesity. This study investigates the impact of adding a warning to fast food restaurant advertisements that reminds consumers that fat, salt, and sugar should be consumed cautiously and that exercising and eating fruits and vegetables are parts of a healthy lifestyle. Employing a 2 x 3 experiment, six advertisements were created to investigate whether the warning can be effective in changing consumption behavior and, if so, among which consumers. The first factor tested was the perceived “healthiness” of the fast food restaurant, and the second factor was a one-sided or two-sided message. In particular, this research focuses on whether viewers would change the anticipated frequency of eating at the fast food restaurant advertised, and /or whether they would change the menu item considered or selected. Generally, the results of this study show that the use of a warning will not be effective in combating today’s obesity problem because we find the lowest compliance with the warning among those who are at the most risk for obesity.

KEYWORDS: Obesity, advertising, warnings

EXTENDED ABSTRACT

Overweight and obesity in the United States have increased sharply over the last several decades. At the time of the 1960 – 1962 National Health and Nutrition Examination Survey (NHANES) 31.5% of all adults, age 20 and over, were overweight or obese, and 13.4% of all adults were obese (Centers for Disease Control and Prevention 2008). Now, according to the 2007 – 08 NHANES data, 68.3% of Americans age 20 and over are overweight or obese, and 34.3% of all adults are obese.¹ In addition, obesity has reached epidemic proportions globally, with more than 1 billion adults overweight and at least 300 million obese (World Health Organization 2003).

Research has linked overweight and obesity to several major health risks including diabetes, cardiovascular diseases, and cancer, all of which weigh heavily on the U.S. health care system (US Department of Health and Human Services 2001). The economic impact of overweight and obesity are present in medical costs, including preventive, diagnostic, and treatment services, morbidity costs such as decreased productivity, restricted activity, absenteeism, and bed days, and mortality costs that represents future income lost due to premature death (Wolf and Colditz 1998; Wolf 1998).

Meanwhile, it is also reported that Americans spend a large share of their food budget (42%) on food away from home, which has been found to be less nutritious than food prepared at home (Todd, Mancino, and Lin 2010). Therefore, many contend that the ubiquity of fast food restaurants and their calorie dense offerings contribute significantly to the obesity crisis (Zywicki, Holt, and Ohlhausen 2004). Supporting this hypothesis, one study found a small, but significant positive association between fast food consumption and overweight status (Bowman and Vinyard 2004). In another study, the researchers concluded that the increase in per capita number of restaurants makes the

¹ Based on analysis of NHANES data, available at http://www.cdc.gov/nchs/nhanes/nhanes2007-2008/nhanes07_08.htm, accessed June 7, 2010.

largest contribution to trends in weight, accounting for 61% of the actual growth in Body Mass Index² (BMI) and 65% of the rise in the prevalence of obesity (Chou, Grossman, and Saffer 2004).

The goal of this research is to investigate the effects of warnings in fast food restaurant advertising encouraging the choice of healthier food options, thus helping address this health crisis. From a policy perspective, it is important to identify the consumers who are most responsive to such actions, if any, because if this is to be an effective route to addressing obesity, it must impact the behavior among those most in need of heeding such advice. In addition, restaurateurs would be more receptive to voluntarily adopting this mechanism to address this health crisis if it would encourage better choices without changing patronage.

The warnings developed for this study were based on those adopted in France in January 2006, advising viewers to avoid eating foods that contain too much fat, sugar, or salt; to eat at least 5 servings of fruit and vegetables every day; avoid eating snacks; and engage in physical exercise regularly (Holdsworth, Kameli, and Delpeuch 2006). This research investigates the behavioral effects of adding such statements to fast food restaurant advertising in the US. In doing so, we provide information that will be useful in screening one possible intervention.

Warnings are a special class of information disclosures for the purpose of alerting consumers to special risks from a product or service (Andrews 2007). Warnings that are designed to inform the consumer of a product's risks before the product is used are called off-product warnings (Argo and Main 2004), and their intent is to interrupt or disrupt the consumer's actions or plans for action (Stewart, Folkes, and Martin 2001). However, there is ample evidence that there are interactions between the warning and the usage situation, various elements of the messages themselves, and

² BMI is a number calculated from a person's weight and height and is a fairly reliable indicator of body fatness for most people. The formula is the individual's weight (kg) / [height (m)]². (For more information see http://www.cdc.gov/healthyweight/assessing/bmi/adult_bmi/index.html#Definition, accessed August 5, 2010.

characteristics of the users that play important roles in the ultimate impact (Stewart, Folkes, and Martin 2001). For this study, we investigate the mere presence of a warning, and then the potentially different effects of a one-sided versus two-sided message. Regarding the viewer, we investigate potential interactions between his or her nutrition knowledge, frequency of exercising, frequency of eating meals prepared away from a home, perceived ability to control his or her own weight, and the importance of healthy dietary actions and the warning on his or her behavioral intentions.

Employing a 2 x 3 experiment, six advertisements were created to investigate the efficacy of such warnings and, if effective among which consumers. The first factor is the fast food restaurant advertised, one of which was perceived as healthier than the other in a pre-test. The second factor is the type of warning that follows the ad, either no warning (control group), a one-sided warning, or a two-sided warning. As the name implies, a one-sided message presents just one side of the argument, as implemented in France. The two-sided message, however, presents the same statements, but also acknowledges that some of the food ingredients that are unhealthy in larger quantities are those that make the food taste better. In doing so, it affirms one of the viewer's likely counter arguments to the one-sided message.

A questionnaire was developed such that the respondents watched a commercial then answered several questions about their current and intended behaviors, nutrition knowledge, and basic demographics, including height and weight information which were used to calculate the BMI of each respondent. The survey was formatted and implemented by iResearch in Washington, DC and distributed to a panel of respondents in the general population. The results presented reflect a total sample of more than 1200 respondents.

Generally, the results of this study show that the two-sided warning is the only one that has any impact on the dependent variables, and is the only one considered in the balance of our analysis.

First, with only one exception, the results also show that the warning has no impact on the frequency that the respondents anticipate eating food from the featured fast food restaurant in the ad. The exception occurs only for the two-sided warning among the overweight or obese subsample such that the presence of the warning increases the anticipated frequency of eating food from Burger King among this subsample.

Regarding the intention to choose or consider healthier items from the menu, we found that the two-sided warning has a significant, positive impact on this behavioral intention. However, this finding is derived from the intentions among the underweight or normal weight subgroup, who are not those at the highest risk.

When considering the interaction between the individual variables and the two-sided warning, we found that the importance of dietary actions, nutrition knowledge, and participating in exercise have a positive impact on considering or choosing healthy items for the menu, but the warning had no significant impact. We also found that nutrition knowledge and participating in exercise interact with the two-sided warning to increase in the anticipated frequency of consuming food from these fast food restaurants. Fortunately, we found that this is significant only among the underweight or normal weight subgroup. While this is not the intended outcome of the warning, these are not the individuals who are at the most risk of obesity, and these findings may imply that even if frequency increases, they may be eating healthier options. For all respondents, as the importance of positive dietary actions increases, the presence of the warning also increases the anticipated frequency of consuming food from these fast food restaurants. Again, the importance of dietary actions is also correlated with choosing or considering healthy items, even though the presence of the warning is not significant.

We show that as the number of meals away from home increases, the measure of choosing or considering healthy options, in the presence of the two-sided warning, only increases among the

underweight or normal weight subgroup. Unfortunately, among the overweight or obese subgroup, the presence of the warning actually decreases the measure of choosing or considering healthy items. Compounding this situation, we also found that the two-sided warning significantly increases the anticipated frequency of eating food from the advertised fast food restaurant among the overweight or obese subgroup.

Among those who believe they have control over their weight, we found that there is a boomerang effect such that in the presence of the two-sided warning, these individuals are less likely to choose or consider healthy items, regardless of his or her weight category. Further, the belief in one's control over his or her weight had no impact on the anticipated frequency of eating food from the advertised fast food restaurant.

In summary, the results of this study present information about the efficacy of warnings on fast food restaurant advertising. We show that fast food restaurants may include warnings in their advertisements without experiencing any loss in demand. Unfortunately, however, these messages may be most effective among consumers least at risk from consumption of these foods, and have a potentially detrimental effect on those at higher risk. We find, therefore, that these warnings may not be as helpful as the French officials hoped.

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