

A QUALITATIVE ANALYSIS OF CALORIE MENU LABELING: POINT OF SALE
CONVERSATIONS WITH CASHIERS AT FAST-CASUAL RESTAURANTS

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Submitted to the faculty of the University Graduate School
in partial fulfillment of the requirements
for the degree
Master of Arts
in the Department of Communication Studies
Indiana University

May 2015

Accepted by the Graduate Faculty, Indiana University, in partial fulfillment of the requirements for the degree of Master of Arts.

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ACKNOWLEDGEMENTS

Foremost, I would like to thank my thesis advisor, Dr. John Parrish-Sprowl for the continuous support of my Master's study, research and for sharing his immense knowledge within the field of Applied Health Communication and application of communication theories. I appreciate your time, flexibility, commitment and willingness to discuss applicability of both your corporate and academic experiences.

I would also like to express my appreciation to the rest of my thesis committee including insightful comments from Dr. Ron Sandwina and Dr. Beth Goering as well as the rest of the graduate faculty in Applied Communication at IUPUI. I cannot thank you enough for the opportunities and support I received while in the program.

Last, and certainly not least, I would like to thank my hard-working mother, Kate Bechtel, who has sacrificed her whole life for my sister and me to provide unconditional care, security and love. I appreciate all her support, not only during this time in my life, but everything leading up to this point. I would not be here today in a graduate program without her support financially and emotionally. Her knowledge and skills have helped guide me to where I am today and I could thank her for everything she has done for me.

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The study was conducted to examine the communication between the customer and the cashier at the point of purchase in the process of determining the impact of the labeling laws. This study used an inductive qualitative design for data collection and data analysis. Data from this study suggest that calorie counts on menu labels are discussed frequently between the customer and the cashier at the point of sale at fast-casual restaurants. The data found gives us a framework and rationale as to why previous research on the effectiveness of the calorie labeling law in the Affordable Care Act have yet to make a significant impact in reducing consumer's total daily caloric intake when eating food away from the home and found three specific reasons as to why the calorie labeling law may not be working the way the government intended it to.

First, consumers at fast-casual restaurants rely on the cashiers as calorie guides because they are not aware or knowledgeable about the recommended daily caloric intake and often underestimate the total calories in their meals. Secondly, the study's findings indicate that when restaurants offer lower calorie choices and downsizing options like a "small pita" at Pita Pit instead of a "regular pit", many consumers buy the downsized item or smaller portion but food chains are not downsizing their signature items. Third, the study examined if the cashiers are trained in any way to discuss new regulations and calorie count/nutritional value and not one cashier was trained specifically about the calorie

labeling law and why certain foods on the menu have more calories than others even though they are influencing decision making.

Conversations at the point of sale have been routinely ignored in research about the calorie labeling law and this research helps to understand the choices consumers are making with the newly implemented calorie labeling regulation. The results from this study helps us further advance our understanding as to why consumers make the food choices they do while eating at restaurants.

John Parrish-Sprowl, Ph.D., Chair

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INTRODUCTION

Dining out in America has increased substantially in the past decade and with the amount of food that Americans are eating away from home, public health officials are increasingly concerned about the hidden costs that come along with eating more meals in restaurants outside the home. According to the National Restaurant Association (2013), people today make almost half of their food purchases away from home. In 1955 it was 25 percent. Nationwide, restaurant sales in 2013 are expected to reach \$660 billion, a 3.8 percent increase over 2012 and the fourth consecutive year for sales growth in the industry. As the restaurant industry continues to grow, so do Americans' waistlines. A recent IOM report published in 2012 found that two thirds of adults and one third of children were overweight or obese, with associated costs comprising 21% (\$190.2billion) of annual healthcare expenditure in the U.S. (Glickman, Parker, Sim, Cook, & Miller, 2012).

Obesity (defined as a body mass index $> 30 \text{ kg/m}^2$) itself is a direct cause of Type II diabetes, hypertension, gallbladder disease, osteoarthritis and cancer of the breast, colon, and endometrium. Obesity imposes an increasing burden on the health care system, and that burden grows disproportionately large for the most obese segment of the U.S. population. Because the prevalence of severe obesity is increasing much faster than that of moderate obesity, average estimates of obesity effects obscure real consequences for individuals, physician practices, hospitals, and health plans (Andreyeva, Sturm, & Ringel, 2012).

Roland Sturm (2002) used regression analysis to show that obese adults incur annual medical expenditures that are \$395 (36 percent) higher than those of normal

weight incur. This analysis, however, was limited to people under age sixty-five. People age sixty-five and older now account for roughly one-fourth of the obese population, and, because of the chronic nature of obesity-attributable diseases, medical spending for treating elderly obese people is likely to be much higher than spending for nonelderly obese people (Finkelstein, Fiebelkorn, & Wang, 2003).

With the growing rate of obesity and diabetes in the United States as well as the amount of money we are spending to fight the obesity epidemic, public health officials in the United States have begun to take action to try and regulate this disease because many of the diseases resulting from obesity are preventable. Many policymakers are taking a closer look at the causes of the epidemic and they have found a portion of the obesity epidemic can be attributed to the combination of the increased number of people eating in restaurants in addition to the poor nutritional quality of the foods served in these establishments (Lin, Frazão, & Guthrie, 1999; Nielsen & Popkin, 2003). This trend is concerning because foods consumed away from home typically have more calories, fat and sodium than foods prepared in the home (Variyam, 2005).

In a study published in 2003 by Paeratakul et al., adults consumed an average of 205 more calories and children and adolescents consumed an average of 155 more calories on days they ate fast food compared to days they did not eat fast food. In the study by Bowman et al. (2004), an average of 187 additional calories per day was consumed by children (aged 4 to 19 years) who ate fast food than children who did not.

Restaurants often serve food with more calories than consumers need to intake and therefore dining out is a risk factor for obesity and chronic illnesses like heart disease

and diabetes. Without knowing the nutritional information in the food before consumers order, studies have suggested that many people do not have the capacity to judge the caloric content of the food they order. In fact, many consumers largely underestimate the number of calories in what they consume. In a recent study published in March 2014 in the journal *Public Health Nutrition*, researchers surveyed 326 Chipotle customers about what they ordered and how many calories they estimated were in their order. They found that on average, the customers underestimated the calories by 21 percent. For example, on average, the customers guessed their burritos were about 630 calories when they were actually closer to 900 (Liu, Bettman Uhalde & Ube, 2014).

Without paying attention to meal size or menu items chosen, Bates et al. (2011) found that fast-food diners underestimated the calorie content of their fast food by 27%, with the estimated mean for meals being 662 calories when the actual average calories consumed was 905.

In the U.S., consumers were first provided with nutrition information in 1990 with the Nutrition Labeling and Education Act (NLEA), which mandated that accurate nutrition labels appear on food products, but it did not include food served in restaurants. Research has proven that NLEA has positively impacted purchasing decisions which reason to believe that menu labeling may also improve dietary choices. For instance, surveys completed by Derby and Levy (2011) found that in 1990, one third of consumers reported that nutrition labels caused them to change their decision about purchasing a product; in 1995, after enforcement of the NLEA, 48 percent of consumers reported changing purchasing decisions based on nutrition labels; and in 1996, one third of survey respondents had discontinued buying a product that they had regularly purchased because

of the nutrition label, and one in four began purchasing a product that they had not previously used, because of the nutrition label. A rationale for extending disclosure of nutrition information from packaged goods to chain restaurant menus is based on evidence that the restaurant industry food sector makes up a substantial and growing part of the American diet.

In December 2006, New York City approved the nation's first regulation requiring calorie labeling in certain fast-food restaurants. An amended regulation was approved in January 2008 and became effective March 31, 2008, making New York City become the first jurisdiction in the United States to require restaurant chains with 15 or more locations nationwide to post calorie counts on menus, menu boards, and item tags. Calories must be posted clearly and conspicuously, adjacent or in close proximity to the item name, using a font and format that are at least as prominent as the price or item name (New York City Health Code, § 81.50). Several other cities followed the lead of New York City by implementing the calorie labeling laws mandating that the caloric information be posted on menus and menu boards in chain restaurants, including King County, Washington State (HB 3160 2008), Philadelphia, Pennsylvania (City Council Bill 080167 2008), San Francisco, California (Ordinance No. 40—08 2009), California State (SB 1420 2008), and Oregon (HB 2726 2009).

It was not long before the federal government decided to implement calorie labeling laws nationwide. On March 22, 2010 the US Health Care Reform Bill was signed into law by the president that included the US National Menu Labeling Law in Section 2572. The law affects restaurants that are part of a chain with 20 or more locations doing business under the same name (regardless of the type of ownership of the

locations) and offering for sale substantially the same menu items and vending machine operators with 20 or more machines. This includes disclosing calories on menu boards and in written form, available on request, additional information about total calories and calories from fat, amounts of fat and saturated fat, cholesterol, sodium, total and complex carbohydrates, sugars, dietary fiber, and protein (Federal Register, 2010). These menu labeling requirements enacted as part of federal health reform will preempt state and local menu labeling requirements.

The U.S. Food and Drug Administration (FDA) issued a Federal Register notice on April 1, 2011, that explains how restaurants not covered by the new federal menu labeling requirements in Section 4205 of the Patient Protection and Affordable Care Act may voluntarily register to become subject to the new requirements. The FDA has issued proposed rules for both menu labeling and vending machines but has not yet issued final rules (Federal Register, 2011a, b).

Several studies both in the lab and field studies have examined the impact that calorie labeling has on consumer behavior, and the existing literature provides mixed results of the impact of the regulations. In a 2008 review, Harnack and French were able to identify only six studies that tested the effects of calorie labeling on consumer choice. Results from five of these studies provided some evidence that calorie information may influence food choices in a cafeteria or restaurant setting (Yamamoto J, Yamamoto J, Yamamoto B, Yamamoto L, 2005; Balfour, Moody, Wise, & Brown, 1996; Cinciripini, 1984; Milich, Anderson, & Mills, 1976; Burton, Creyer, Kees, & Huggins, 2006). Results from most of these studies suggest a weak or inconsistent effect. One

study found no evidence of an effect of calorie labeling on food choices (Mayer, Brown, Heins, & Bishop, 1987).

Another systematic literature review was done in 2011 by Swartz, Braxton and Viera that included the seven studies published since the last review in 2008 by Harnack and French. The seven studies used an experimental or quasi-experimental design comparing a calorie-labeled menu with a no-calorie labeled menu and were conducted in laboratories, college cafeterias and fast-food restaurants (Swartz, Braxton & Viera, 2011). All seven studies compared calorie ordering and purchasing in two conditions: calorie label versus no calorie label. Two studies reported that calorie menu labels reduced the calories purchased (Chu, Frongillo, Jones & Kaye, 2009; Roberto, Larsen, Agnew, Baik & Brownell, 2010), one reported significant reductions in calories purchased at some chains (but not others) (Dumanovsky, Huang, Nonas, Matte, Bassett, & Silver, 2011), three reported no effect on calories purchased (Elbel, Gyamfi, & Kersh, 2011; Elbel, Kersh, Brescoll, & Dixon, 2009; Harnack, French, Oakes, Story, Jeffery, & Rydell, 2008), and one reported a slight increase in calories purchased (Finkelstein, Strombotne, Chan, & Krieger, 2011).

For example, the study conducted by Roberto et al. (2010) assessed the impact of restaurant menu calorie labels on food choices at intake by randomly assigning over 300 participants either (1) a menu without calorie labels (no calorie labels), (2) a menu with calorie labels (calorie labels), or (3) a menu with calorie labels and a label stating the recommended daily caloric intake for an average adult (calorie labels plus information). Food choices and intake during and after the study dinner were measured. Participants in both calorie label conditions ordered fewer calories than those in the no calorie labels

condition. When calorie label conditions were combined, that group consumed 14 percent fewer calories than the no calorie labels group, thus coming to the conclusion that calorie labels on restaurant menus impacted food choices and intake.

The study by Dumanovsky et al. (2011) found that calorie labels on menus reduced the number of calories purchased at McDonalds, Au Bon Pain and KFC but did not reduce mean energy content at Subway. The researchers chose 168 randomly selected locations of the top 11 fast food chains in New York City and conducted cross-sectional surveys in spring 2007 and spring 2009 (one year before and nine months after full implementation of the regulation requiring chain restaurants' menus to contain details of the energy content of all menu items) during lunchtime hours.

Results from most of these studies suggest a weak or inconsistent effect. Menu labeling is intended to help people assess their total caloric intake, but after a review of the current literature, it has been found that calorie labels do not consistently influence the choices most people make about the food that eat.

To date, there has not been exploration whether if customers consistently inquire about menu calorie labels and whether customers seem to be interacting or questioning the nutritional value information that is posted on the menu boards by discussing it in front of the cashiers, either with a peer or communicating with the cashiers themselves. If customers do mention the calories posted on the menu boards at restaurants, what are they communicating? Could customer confusion be the reason the calorie labeling law has yet to make a difference since 2008, when the first regulation was put into place in New York City? If so, what type of confusion is there about the labels? What format for

posting calories seems to be working or not working on menu boards? There is a lot we do not know about the effectiveness of section 4205 of the Patient Protection and Affordable Care Act (PPACA), which became effective on March 23, 2010. Currently, some provisions depend on the FDA to issue rules before they can be required. The law specifies that the FDA must establish requirements for a statement on the menu or menu board that puts the calorie information in the context of a total daily caloric intake and the standards for determining and disclosing the nutrient content for standard menu items that come in different flavors, varieties or combinations, but which are listed as a single menu item (U.S. Department of Health and Human Services Food and Drug Administration, 2010).

Based on the mixed results of the quantitative studies that evaluate the reduction in calories before and after menu labels have been implemented, no research has been conducted to examine the communication between the customer and the cashier at the point of purchase in the process of determining the impact of the labeling laws. It is an important conversation at the point of sale between the customer and the cashier, and as of yet, no research has examined this conversation and this research looks at fixing that void. CSPI reports that 78 percent of Americans support menu labeling, and with the new menu labeling law in the PPACA, it is clear that both the consumer and the government think it is important, but there is still a lack of information as to why the menu labeling law does not directly reduce calorie consumption according to studies over the last several years. The results from this study show a different side of the calorie controversy and will show us how this new policy can be improved.

Purpose of the study

This study examines the impact of calorie labeling on consumer behavior by interviewing cashiers and frontline workers at fast casual restaurants in both New York City, NY and in Indianapolis, IN. It investigates regional, age and gender differences in the effectiveness of the calorie labeling law by examining the following research questions:

RQ1: Are the calorie counts on menu labels discussed between the customer and the cashier at the point of sale?

RQ2: In conversations between the cashier and the customer at the point of sale, are the cashiers trained in any way to discuss new regulations and calorie count/nutritional value?

RQ3: Do conversations at the point of purchase between cashiers and customers make a difference in selecting lower calorie items on the menu?

RQ4: Are there gender differences in the communication about the calories on the menu?

METHODS

This study used an inductive qualitative design for data collection and data analysis. The aim of the study is to find out why menu calorie labeling has not made significant impacts since the regulation has been in place and that means endeavoring to understand psychological constructs, reflected in thoughts, language and behavior about the calories posted on the menu boards at fast-casual restaurants in two different regions of the country. Many aspects of maintaining a healthy lifestyle that include nutrition and diet are difficult to quantify, yet public health officials must assess and evaluate them. Qualitative research gives you the tools to explore context and examine eating habits to find out the “how” and “why” of a healthy diet with proper nutrition while eating outside the home. It gives insight into the one-on-one conversation between the customer and the cashier at the point of purchase.

“Engaging in inductive inquiry requires that qualitative researchers develop theory and assumptions in much the same way as quantitative researchers; the difference lies in the qualitative researcher’s willingness to modify these constructs based on inductively generated knowledge. Qualitative inquiry often involves an integrative deductive–inductive process, using qualitative data to inform and transform existing theory and research” (Nastasi & Schensul, 2005, pp 177-195). In this particular study aimed at understanding the communication exchange between the customer and the cashier at the point of sale to evaluate if customers seem to be using the calories posted on menu boards to guide and direct them into choosing a healthier item, it is best to use a qualitative design for this purpose guided by the framework of the Grounded Practical Theory (GPT). As a problem-oriented approach to theorizing communication practices,

GPT is especially interested in practices in which the role of communication is not only important but presents complex problems that engage reflection on norms and values as well as technical means (Craig & Tracy, 2014).

To understand the role of communication between the customer and the cashier at the point of sale, interviews were conducted to explore the processes for understanding the impact of the newly implemented menu calorie labeling law in Indianapolis, IN and New York, NY and the surrounding areas including Long Island, NY. The interviews were conducted with cashiers from fast-casual restaurants from a convenient sample. Qualitative inquiry typically focuses in depth on relatively small samples, even single cases (n=1), selected *purposefully*... The logic and power of purposeful sampling lies in selecting *information-rich* cases for study in depth. Information-rich cases are those from which one can learn a great deal about issues of central importance to the purpose of the research, thus the term *purposeful* sampling (Patton, 1990).

Criteria for inclusion in the study were fast-casual restaurants in New York, NY and the surrounding areas that post calories on their menu board thus following the new guidelines within the calorie menu labeling law as well as fast-casual restaurants in Indianapolis, IN who have implemented the new regulation of posting calories on menu boards. New York City does currently have calorie labeling law in place, but Indianapolis, IN does not and will follow the new federal regulation included in the Affordable Care Act.

Interviews were conducted individually at each fast-casual restaurant during the shift the cashier was working. The researcher would ask the questions in-between the

orders. When customers came in to the store the researcher would step aside for a few moments and after the customer's order was complete, the researcher proceeded with the questions. Each interview lasted for approximately fifteen minutes. Individuals were asked ten interview questions contained in Appendix A.

The researcher recorded the answers to the interview questions and then later transcribed them and they are also included in Appendix A. The transcribed conversations were then coded thematically and a back-and-forth thematic analysis was conducted and conceptual categories were formed that created a relationship between themes across all the interviews. After reading through the conversation narratives between the cashier and the researcher, several different themes emerged in which the researcher grouped by coding and then grouped in broader themes. After these themes were identified and saturation was reached, quotes that better illustrated each theme were selected by the research from the interviews and used in the articulation of the grounded practical theory (GPT).

GPT is a metatheoretical and methodological framework for developing theories designed to inform reflective thinking and deliberation about particular communication practices. Its aim is to offer a "grounded description, critique, and theoretical reconstruction of communication problems, techniques, and situated ideals" (Craig & Tracy, 1995, p. 250). In GPT communication practices are reconstructed at three conceptual levels: the problem level, the technical level, and the philosophical level (Craig & Tracy, 2014). The problem level for this particular study is that consumers have been communicated information via the calorie menu boards and to date, the information has not made a significant impact on the menu items selected. Even with the

calories posted, consumers are not reducing caloric intake by a significant amount or not at all. The technical level, also referred as the philosophical level, according to Craig and Tracy (2014) is the identification of the situated ideals that guide choices about how to manage dilemmas. In this particular study, the technical level is what guides consumers and their choices about choosing a calorie item on the menu board when the calories are presented to them. The third conceptual level according to Craig and Tracy (2014) is the situated ideal which is the belief that the participants in the study hold about how they should act within a practice. These ideals are not easily determined by action and are reconstructed through examining the participants through interviews or documents. The situated ideal in this particular study were found after the analysis was conducted and are discussed below in the findings.

Because the GPT was framed to build on the normative communication theory through relevant, social constructionist research (Craig & Tracy, 2014), GPT is used in this study along with the framework from the Health Belief Model (HBM) is a psychological model that attempts to explain and predict health behaviors. This is done by focusing on the attitudes and beliefs of individuals.

FINDINGS

Overall findings of the study suggest that in general calorie counts on menu labels are discussed in communication between the customer and the cashier during the point of sale transaction. In fact, from examples in the study it suggests that cashiers are often times viewed by the customer as more of a “guide” than a cashier in fast-casual restaurants in regards to menu calorie labeling. This leads into what was explored in the second research question to examine if the cashiers are trained in any way to discuss new regulations and calorie count/nutritional value. Data from the study suggest that there has been no training specifically on the new calorie labeling law and menu calorie counts provided by the FDA, the cities that have enforced the menu calorie labeling laws or the corporate organizations that run each restaurant. The third research question examined if conversations at the point of purchase between cashiers and customers make a difference in selecting lower calorie items on the menu and an overall theme emerged during the thematic analysis of this question that found that many customers are very confused by the calories posted on the menu board and they often times look to the cashier to answer their questions and clear the confusion they have. From the interviews, many cashiers communicated that customers often times ask the amount of total calories in a particular item even though it is posted on the menu for them to review before selecting their menu item of choice. During the interviews, cashiers said that customers often confuse the total number of calories with the price of the food or the portion. Lastly, interview questions that surveyed the fourth research question that investigated gender differences in the communication about the calories on the menu suggest that females in their 30s discussed

the calories on the menu board with the cashier or in front of the cashier with a fellow peer more than any other demographic group.

After conducting a thematic analysis of the interviews that examined the communication at the point of sale about the calories posted on the menu boards, the researcher identified three emergent themes. In the three sections that follow, each of the themes will be explored and their relationship to this study's research questions will be developed. The three themes that will be explored include "confused customer," "signature items still sell but downsizing works" and "customers look at cashiers as 'calorie guides'" when discussing calories posted on the menu boards. Each section explores the four specific research questions and emergent themes regarding the communication between the cashier and the customer at the point of sale to explore the effectiveness of the menu calorie labeling law. In order to demonstrate the applicability of the grounded nature of each theme, all of the sections include excerpts from specific interviews at various locations as well as general comparisons of all the participants in the study in all the restaurants that were surveyed.

Confused customer

The first research question of the study asked if customers discuss calorie counts on the menu boards at the point of purchase with the cashier and the data collected shows that people do discuss calories at the point of purchase and there is quite a bit of confusion about the posted numbers on the board. This emerged as a theme after several of the interview questions were discussed.

In particular, the interview questions that displayed the most sense of confusion from the customers regarding the menu labeling regulation include interview question number two that asked the cashier to estimate the number of discussions per day that a customer has about the calories on the menu (either mentioned directly to them or someone else) during the point of purchase at the register; interview question number five that asked what the most common conversations and questions that customers have about the calories listed on the menu while ordering their food; and interview question 12 that asked what customers have communicated about the format of providing nutritional information on menus. The confusion was the same across the two different regions in Indianapolis, IN and New York, NY. Interview question two and five suggests that according to research question one, yes, customers do in fact discuss the calories at the point of purchase either with the cashier or a colleague but they often times mention it out of confusion. The confusion often comes from mixing up the calories for what they believe to be the price. For example, at a Panera in New York the cashier stated, “three or four out of 10 customers discuss the calories at the point of purchase. They usually think the calories are the price and so that is what they discuss with me the most.” That is also the case at a Panera in Indianapolis, IN where the cashier said, “about 1/10 people discussion the calories on the menu at the point of purchase. They ask a lot about are the calories for this or that. I think sometimes there is confusion because there are 2 and 3 different numbers in parentheses.”

When answering interview question five asking about the most common conversations and questions customers have about the calories listed on the menu board, the cashier a Panera location in New York stated, “most of the time they don’t know

what the numbers are. Our ‘You Pick 2’ item has two numbers and they ask why there are two numbers next to the same thing and sometime mix it up for the price.” This confusion is not isolated at Panera. When the researcher asked the same question at Quiznos and Pita Pit the answers were similar. At Quiznos in New York when asked about the most common conversation and questions customers had about the calories listed on the menu boards the cashier said, “in their situation, they think the calories are the price. Sometimes they comment that the item they want is basically what they supposed to have in a whole day!” At the Pita Pit in Indiana the cashier said in response to interview question five, “the calories listed for the pita do not include the pita and the meat so people are confused and don’t know what the calories include. They ask, ‘what does that include’ and want more specification.”

The data suggests that some of the confusion is elicited from the format of providing the nutritional information to customers. Interview question 12 asks cashiers what their customers communicate about the format of providing the information and although many responses to the survey did not provide much feedback on this particular question, a few cashiers stated that their customers ask for additional information. For instance, at a Chipotle in New York when responding to question 12 on the survey asking what her customers have communicated about the nutritional information on menus, she said they “don’t understand it and so sometimes they ask for a paper copy.” And also at a Panera New York the cashier said “I think they would prefer a menu in an easier format.”

The third research question examined if conversations at the point of purchase between cashiers and customers make a difference in selecting lower calorie items on the menu and an overall theme emerged during the thematic analysis of this question that

found that many customers are very confused by the calories posted on the menu board and they often times look to the cashier to answer their questions and clear the confusion they have.

Customers look at cashiers as ‘calorie guides’

The second research question of the study was intended to examine if cashiers at fast-casual restaurants are trained in any way to discuss new regulations and calorie count or nutritional value of food on the menu with their customers during communication at the point of sale. Data from the study shows that there has been no training specifically on the new calorie labeling law and menu calorie counts provided by the FDA, the cities that have enforced the menu calorie labeling laws or the corporate organizations that run each restaurant.

The theme that customers often times view cashiers as ‘calorie guides’ emerged from the answers to several of the interview questions including interview questions one, three, five, and six.

The cashier working at a Chipotle in New York said in response to interview question one asking if the cashier has seen an increase or decrease in a particular item on the menu since the store posted the calories, “a decrease in chips. When people see that is has 500 calories they say they don’t need it. They ask how many calories are in the item sometimes and why. They often times ask why the chips have 570 calories alone and why the guacamole has 170 calories.”

Interview question five asked what the most common conversations and questions were that customers have about the calories listed on the menu while ordering their food. At Panera in New York the cashier said, “they usually ask if the item as so many calories because of dressing or sauces and they question why there are so many calories.” The responses were very similar in Indiana. At a Panera located in Indianapolis, IN a cashier stated, “the most common conversations I get are when people ask why there are so many calories in certain items like why is there so many in the creamy tomato or the broccoli cheddar while they are ordering.” And at a different Panera location in Indianapolis it was also the most common conversation; to ask the cashier about the total number of calories and what is included in that (i.e. dressings, toppings, etc.). The cashier said in response to interview questions five, “they ask about the salads and if that total number includes the dressings. They ask if that includes the half or the whole and why one salad has more calories than other salads.”

This was also a common conversation at the fast-casual burger restaurant, Five Guys, in New York. In response to the question about the most common conversations and questions that customers have about the calories listed on the menu while ordering their food, the cashier said “they usually ask why there are so many more calories in the regular fries compared to the small fry. The large fry has 953 calories and the little fry has 526 calories.”

Interview questions six asked if there was any confusion about the number of calories listed by the menu item. At a Quiznos in New York, the cashier said that “they aren’t really confused; they usually just ask why the calorie number is so high.” She

hasn't had any official training on why there are so many calories but she says she tells them it's usually because of the dressings.

Signature items still sell but downsizing works

This theme emerged in several of the interview questions that were asked including interview questions one, eight, nine, and ten. At many of the different restaurant locations surveyed in this study, the study suggests that no matter if they post the total caloric value on the menu or not, the "specialties" or "favorites" at each store will still sell. Many of the restaurants have implemented downsizing options, or smaller portion sizes, and this seems to be very successful.

Interview question one asked if there has been a decrease or increase in a particular item since posting the calories on the menu. In response to this question the cashier at a Panera in Indiana said, "Surprisingly, no. We sell a lot of the Asiago Cheese bagel that has 330 calories and the cinnamon crunch bagel that has 420 calories."

Interview question eight asked if the cashier offered to downsize the order by cutting it in half (so the consumer would cut consumption of calories in half), do they think it would be effective. At a Chipotle in New York the cashier said, "Yes, I do think downsizing would be effective because they love the chips but they say the calories are too much so maybe offer our customers a smaller bag of chips. I think that would work. And similarly, at the Quiznos in New York, when asked the same question about by cutting the portion size in half the cashier said "yes, people are pretty receptive to lowering calories."

Interview question number nine asked what percentage the cashier's customers request a small portion (because the portion size is too large) than what comes with the meal and many responses to this question indicated that downsizing seems to work to limit of the number of calories consumed by customers. At a Chipotle in New York in response to question nine, the cashier said about 4/10 of the customers. She went on to say, "They say they want a half scoop of this, a little of that when it comes to the toppings to try and limit the calories." At Quiznos in New York, the data was the same, in response to what percentage of your customer's request a smaller portion (because the portion size is too large) than what comes with their meal, the cashier said 5/10. The cashier said, "most of the time it is the people who were going to get a bigger sub and then change their mind to a smaller sub."

In Indiana, the conversation was similar. At a Pita Pit the cashier said, "About 4/10 customer's request a smaller portion (because the portion size is too large) than what comes with the meal. The new smaller pitas are really popular because of this. They definitely want a smaller size."

In addition to question nine on the survey, interview question number ten also elicited data that suggests that the signatures are still selling even with the calories on the menu board. In the following section, responses will be explored from the survey question that asked the cashier what percentage of the orders are made from the top five highest calorie items on the menu.

At a Panera located in New York, the cashier said, "60% of our orders come from the top five highest calorie items on the menu. The most popular items are still the most

caloric items including the broccoli cheddar, the turkey bravo is very popular here as well.” At a Quiznos in New York, the cashier said about 60-70% of the orders come from the top five highest calorie items on the menu. The cashier went on to say, “There are still a lot of orders from our highest calorie items including Prime Rib, the Angus and the French Dip.” At Five Guys in New York, the cashier said, “our most popular item is the bacon cheeseburger. The cashier said, “75% of the orders will have either bacon or cheese on it.” The responses were similar in Indiana. At a Panera in Indiana, the cashier said in response to the question, “A lot. About 30-50% of our orders come from the most popular items like bread bowls, broccoli cheddar and the Italian combo.” The response was similar at a different Panera location in Indiana. The cashier said “about 50% or more come from our top five highest calorie items. What’s their favorite is their favorite and they will order it regardless.”

The percentage was also high at another fast-casual restaurant in Indiana, Pita Pit. The cashier said about “40% of the orders come from the top five highest calorie items.”

DISCUSSION

This study finds that calorie counts on menu labels are discussed frequently between the customer and the cashier at the point of sale at fast-casual restaurants. It also found that cashiers at all the fast-casual restaurants surveyed have received no training to answer nutritional questions about the content of the food including specifics about calorie count and why one food item may have more calories than other food items on the menu. The data found in these conversations between the cashier and the customer at the point of sale gives us a framework and rationale as to why previous research on the effectiveness of the calorie labeling law in the Affordable Care Act have yet to make a significant impact in reducing consumer's total daily caloric intake when eating food away from the home.

First, consumers at fast-casual restaurants rely on the cashiers as calorie guides because they are not aware or knowledgeable about the recommended daily caloric intake and often underestimate the total calories in their meals. The Affordable Care Act assumes people will use calories on the board to make better choices and that they know how to do this but this has resulted in many confused customers. Secondly, the study's findings indicate that when restaurants offer lower calorie choices and downsizing options like a "small pita" at Pita Pit instead of a "regular pit", many consumers buy the downsized item or smaller portion but food chains are not downsizing their signature items. Restaurants must reduce calories in the items offered on the menu for individual consumer behavior to change and for daily calorie intake to be reduced. Lower calorie menu items could make a huge difference in the obesity problem in the United States. Third, the second research question of the study examined if the cashiers are trained in

any way to discuss new regulations and calorie count/nutritional value and not one cashier received trained specifically about the calorie labeling law and why certain foods on the menu have more calories than others.

Conversations at the point of sale have been routinely ignored in research about the calorie labeling law and this research helps to understand the choices consumers make with the newly implemented calorie labeling regulation. The 2010 Affordable Care Act authorized the U.S. Food and Drug Administration (FDA) to establish uniform requirements affecting many U.S. chain restaurants but specific rules from the FDA as they haven't been decided or implemented yet but are expected in early 2015.

In order to accurately use the calorie information that restaurants post on menu boards, consumers first must understand the nutrition label and how many calories they are supposed to consume on any given day and thus, be able to break that data down and understand how many calories they should consume at any given meal. This study unveils that, based on the conversations that customers were having with the cashiers, many had little caloric knowledge about the recommended daily caloric intake and in turn, they use the cashiers as calorie or nutrition guides yet, all of the cashiers said that they have not been trained by the store about nutrition information or calorie information within the content of the food. For example, at a Chipotle in New York the cashier said, "They ask how many calories are in the item sometimes and why. They often times ask why the chips have 570 calories alone and why the guacamole has 170 calories." And in response to question five asking what the most common conversations and questions customers have about the calories listed on the menu when ordering their food the cashier at a Panera in Indianapolis noted that "people often ask why there are so many calories in

certain items like such as the creamy tomato or the broccoli cheddar soups.” The data is similar at a Panera in New York where the cashier said in response to question five again, that the most common conversations she has at the point of sale about calories is “they usually ask if the item has so many calories because of dressing or sauces and they question why there are so many sauces.” These findings correlate to what other scholars have found about the nutritional knowledge of the consumer. For instance, in a study done by Johns Hopkins University that surveyed 246 regulars at a hospital cafeteria they found that 58% were not aware of the ballpark 2000-calorie target for adults (Cheskin, Lee, Righter, Loglisci, Hipper, & Abel, 2014). That is a survey population of participants that included doctors, nurses and other health professionals.

The calorie labeling law in the Affordable Care Act also assumes that people will see, understand and use the nutrition information posted on the menu. According to an article by the U.S. Department of Agriculture’s Economic Research Service, “90% of Americans reported that they had gone to fast food/pizza places and 88 % to full-service restaurants in the previous 12 months. Few of these respondents saw nutrition information: 21% of fast-food patrons and 17% of full-service restaurant patrons saw nutrition information on menus. Of those who saw nutrition information on the menus, 42% of fast-food patrons and 55% of full-service restaurant patrons said they used this information. Because few consumers saw nutrition information while eating out, the total share of patrons of both fast-food and full-service restaurant establishments who used nutrition information was only 8%” (Gregory, Rahkovsky, & Anekwe, 2014).

The data from this study suggests that many customers at fast-casual restaurants are unformed about the calorie labeling information on the boards, and thus may not

“see” it because they think it is the price or they just don’t know what that number indicates so they ignore it. This leads one to “ignore” the nutritional information and therefore they do not use the information to guide them to make healthier choices at the point of purchase. Public messages that communicate calorie information to consumers about the calorie reference value are necessary for menu-labeling interventions to be more effective and for individuals to provoke behavior change to choose a menu item with fewer calories once the information has been presented to them.

Theoretical Implications

According to social psychologists Godfrey Hochbaum, Irwin Rosenstock, and Stephen Kegels who created the Health Belief Model (HBM), it suggests that there is a ‘cue to action’ to prompt a behavior change. This could be a conversation with a friend or a television program or an external prompt. The theory includes four factors that need to take place for behavior change to occur. First, the person needs to have an ‘incentive’ to change their behavior. Second, the person must feel there is a ‘risk’ of continuing the current behavior. Third, the person must believe the change will have ‘benefits’, and these need to outweigh the ‘barriers.’ Finally, one must have the ‘confidence’ (self-efficacy) to make the change to their behavior. So with this study, a person must have the knowledge and ability to believe they can cut down their fatty food intake and lower total daily caloric intake to help them lose weight and are ‘confident’ about their abilities to do this. The last factor that states an individual must have the confidence to make the change is what this study found is missing from being able to change one’s behavior, thus, showing us that customers don’t have the knowledge, ability or self-efficacy to make the behavior change.

The framework for the Health Belief Model (HBM) can explain why consumers are not making a behavior change at the point of purchase within this study and further why the Ground Practical Theory (GPT) explains the need for the fourth factor of the HBM discussed above to be achieved by generating more educational campaigns to increase nutritional knowledge because it is a problem-oriented approach to theorizing communication practices. It also is especially interested in practices in which the role of communication presents complex problems that engage reflection on norms and values as well as technical means (Craig & Tracy, 2014). The grounded practical theory can be used for the need to train cashiers to be able to communicate information about the calories on their menu board. Design of communication involves an empirical investigation of communication problems and solutions that can apply existing communication theories as design languages (Aakhus & Jackson, 2005, p. 416).

Furthermore, the study's findings indicate that when restaurants offer lower calorie choices and downsizing, many consumers buy the downsized item or smaller portion but food chains are not downsizing their signature items. Many of the most popular items ordered are still the top five highest calorie items on the menu; for example at Panera, the signatures include the Broccoli Cheddar Soup Bowl, the Asiago Cheese Bagel and the Cinnamon Crunch Bagel. This was also the case at Quiznos in New York, where about 60% of the orders come from the highest calorie items on the menu including the Prime Rib, the Angus and the French Dip Sandwiches. And furthermore, at Five Guys, the cashier noted that about 75% of the orders will include either cheese or bacon on it. Of the cashiers interviewed for the study, 80% of the cashiers said that the

percentage of the orders that come from the top five highest calorie items on the menu is at least 50% of the orders or higher.

Even though signatures are still selling, it's positive to note that this study suggests that if the consumer was offered a downsizing option, including the "small fry" or "small pita" found in the study, many customers decided to downsize and go with the smaller portion offered on the menu. For instance, Five Guys started offering the "small fry" and "small burger" instead of the regular fry and regular burger in 2013. The cashier said that these are probably the most popular items now on the menu now. The regular fry has 953 calories and the little fry has 526 calories. Just by offering a new size, Five Guys has reduced the amount of calories consumed if someone chooses the small fry over the regular fry by 426 calories. Also, at Pita Pit, the cashier said that about 4/10 of the customers are now ordering the "small pita" with half the meat and a smaller pita. She went on to say that many people definitely want a smaller size than what is offered in the traditional pita.

This data suggests that a big impact of calorie labeling in restaurants will more than likely come from action taken from the restaurants, not the consumers. Restaurants must reduce calories in the items offered on the menu to change and for daily calorie intake to be reduced. This data is supported by other studies recently published. A study published in October 2014 (Bleich, Wolfson & Jarlenski,) found that large restaurant chains have been introducing new lower-calorie menu items. The researchers found that menu items introduced in 2013 contained 12% fewer calories, on average, than items on the menu only in the prior year. That is an average of a 60 calorie reduction per visit. "For example McDonald's Corp., introduced a 310-calorie grilled-onion cheddar burger

in 2013, a 44% reduction compared with the 558 calories that its burgers on the 2012 menu averaged, according to a database compiled by the New York City Department of Health. And Brinker International Inc.'s Chili's chain introduced a 580-calorie Mango Chile Chicken entree in 2013 with 35% fewer calories than the 894 average in a Chili's entree in 2012" ("Calorie Counts Come Down," 2014). With more policies to regulate the size and content of food items offered away from the home in restaurants, this tactic will hopefully continue to decrease the number of consumed calories by Americans.

This is a commitment the large food chains and beverage companies must invest in as American consumers and the government have started to become more conscious about their health and increased scrutiny from regulators. The big three soda companies have already caught on; in September 2014, the Coca-Cola Co., PepsiCo Inc. and Dr. Pepper Snapple Group, the three largest soda companies, have pledged to decrease calories found in the beverages that Americans consume by 2025 (Strom, 2014) and that is in response to American's scaling back on soda consumption. "Since the industry's peak in 1998, the per capita consumption for soda in the United States has decreased. According to estimates made by the Beverage Digest, which tracks the soda industry, the calories found in sodas have decreased by 23 percent from the 2000 to 2013" (Mamiit, 2014). Calorie labeling and nutritional transparency will continue to push these companies to commit to healthier options for consumers.

The data elicited from this study helps us further advance our understanding of why consumers make the choices they do and it illustrates that that the calorie labeling law may make significant impacts to help fight the obesity epidemic in the United States in the near future. It will need the support of public education campaigns, targeted

communication via cashiers through training provided by the FDA and finally, restaurants must improve their overall health profile by offering lower calorie menu items resulting in an overall reduction in calories on each restaurant menu through policy developments. Simply displaying information about the caloric value of various food items on the menu may fail to convert into attitudinal, motivational, or—most importantly—behavioral changes in line with choosing healthier food options (Elbel, Kersh, Brescoll & Dixon, 2009).

We know that we must change the behavior of the increasing obese population in the United States, however, we must pay attention to the origin of the behavior and these communication interventions must be associated with other behaviors if obesity is to be greatly reduced in the overall U.S. population.

Limitations and Future Research

This study had several limitations that direct the need for future research. Limitations of this study include those that related to the participant size and restaurant locations. New York City and the surrounding areas were chosen because it is the first site in the country to have introduced calorie labeling. Since New York City is always a crowded place, the researcher experienced limited access to cashiers. All the fast-casual restaurants in Manhattan are busy no matter what time it is, so access to asking questions of the cashier became a limitation. The researcher had limited time and resources in the city, along with the difficulty of finding a cashier available to answer questions from the researcher.

In addition, another limitation was that the researcher was unable to find the direct impact on one of the research questions that examined, if conversations at the point of purchase between cashiers and customers make a difference in selecting lower calorie items on the menu. The research found that there are conversations at the point of purchase, women converse about the calories more than men, downsizing options are very popular, signatures still sell and lastly, that cashiers have not been provided any on the job training about calorie counts or nutritional knowledge to help direct their customers about what is in the food the customer is ordering and why the calorie count might be higher than what they thought would be in the food. Other scholars agree that because consumers make decisions about what they eat on the basis of a number of factors, a mixture of communal strategies and policy interventions will be required to improve food choices among a variety of population groups (Health Impact Assessment, 1999). For this reason, the researcher believes that future research is needed that would examine the impact of providing mandated training to frontline workers at fast-casual restaurants and equip them with educational information on calorie counts, nutritional knowledge and the policies behind the calorie labeling law within the ACA specific to their particular restaurant to evaluate the correlation between training the cashiers and the food choices consumers make once the cashier has been provided the training.

APPENDIX

Interview #1
Panera- Indiana

Since posting the calories on your menu board, have you seen an increase or decrease in a particular item on your menu? **No, surprisingly. We still sell a lot of the Asiago Cheese bagel that has 330 calories and the cinnamon crunch bagel that has 420 calories.**

Please estimate the percentage of discussions per day that a customer has about the calories on the menu (either mentioned directly to you or someone else) during the point of purchase at your register. **1/10 people they ask a lot are the calories because of this or that. I think sometimes there is confusion because there are sometimes 2 and 3 different numbers in parentheses.**

Is there a particular age group that you think discusses the calories at the point of purchase more than others while looking at the menu board? **30s**

Is there a gender that discusses calories more than others? **Female**

What are the most common conversations and questions that customers have about the calories listed on the menu while ordering their food? **People often ask why there are so many calories in certain items like why is there so many in the creamy tomato or the broccoli cheddar.**

Is there any confusion about the number of calories listed by the menu item? **Yes, most people do understand that high calorie is oil and fat so there isn't much confusion.**

How often would you say you think someone changes their mind at the point of purchase because the item they wanted had too many calories? **Almost never, maybe once a day out of thousands people. More people are more worried about the price rather than the calories. Most people still order high calorie items.**

If you offered to downsize the order by cutting it in half (so the consumer would cut consumption of calories in half), do you think this would be effective? **Yes, it has really worked with our half and half deal plus Panera makes more money this way.**

What percentage of your customer's request a smaller portion (because the portion size is too large) than what comes with the meal? **This is the reasoning behind our half and half deal. The number of people who decide to get salad is a lot but I would say about 10% communicated this beyond the half and half deal that is already an option**

What percentages of your orders come from your top 5 highest calorie items on the menu? **A lot. About 30-50% including most popular items like bread bowls, broccoli cheddar and the Italian combo**

Do you believe that the menu labels enact behavior change?

- a. If you do, why do you think this? In general, yes, here no. Our food is comfort good. They don't come here for healthy food. Most people don't choose healthy items even though they are available. The food is too delicious that you can't make at home. You can make a classic or greek salad at home.

What have customers communicated about the format of providing nutritional information on menus? (i.e.- "healthy choice" symbols, displaying total caloric intake needs or presenting items in order of caloric content) Range is not good, specific amount of calories are good because they get confused if they have to go add the whole meal up.

Do you think menu labeling has increased in effectiveness over time? If so, why? Yes, before it became common I always ate fast food and then calories were posted and people go to more restaurants like Panera and Pita Pit because they see it is better for you.

Interview #2
Panera- Indiana

Since posting the calories on your menu board, have you seen an increase or decrease in a particular item on your menu? **I haven't seen a major difference. People are still ordering the higher calorie items.**

Please estimate the percentage of discussions per day that a customer has about the calories on the menu (either mentioned directly to you or someone else) during the point of purchase at your register. **5/10 discuss it quite often with each other or with us.**

Is there a particular age group that you think discusses the calories at the point of purchase more than others while looking at the menu board? **Late 20s to late 50s**

Is there a gender that discusses calories more than others? **Female**

What are the most common conversations and questions that customers have about the calories listed on the menu while ordering their food? **They ask about the salads and if that includes the dressings. They ask if that includes the half or the whole.**

Is there any confusion about the number of calories listed by the menu item? **Yes, there is because there are 2 different numbers listed or 3 different numbers for the soups. Sometimes they confuse it for the price.**

How often would you say you think someone changes their mind at the point of purchase because the item they wanted had too many calories? **3/10 fairly low.**

If you offered to downsize the order by cutting it in half (so the consumer would cut consumption of calories in half), do you think this would be effective? **We have that with our half and half deal so yes.**

What percentage of your customer's request a smaller portion (because the portion size is too large) than what comes with the meal? **With the half and half deal I would say about 60% of our customers choose to do this.**

What percentages of your orders come from your top 5 highest calorie items on the menu? **About 50% or more. It doesn't affect our most popular items. What's their favorite is thir favorite and they will order it regardless.**

Do you believe that the menu labels enact behavior change?

- a. If you do, why do you think this? **Yes, I do. Even with the simple large pictures that we have on certain items right now. Calories posted on BIG pictures of the food definitely influences people. It it was bigger or more advertised these items become more popular.**

What have customers communicated about the format of providing nutritional information on menus? (i.e.- “healthy choice” symbols, displaying total caloric intake needs or presenting items in order of caloric content) **not much on this. We do have a hidden menu with higher protein or no side that the cashier may mention it. It was rolled out via social media but not on the menu boards but here there are high protein healthy items.**

Do you think menu labeling has increased in effectiveness over time? If so, why? **She thinks it is working and beneficial. It helps that others restaurants are starting to do it and the customers seem to like it.**

Interview #3
Pita Pit- Indiana

Since posting the calories on your menu board, have you seen an increase or decrease in a particular item on your menu? **Yes, there has been an increase in chicken breast because its only 300 calories with the pita. Its more popular than it used to be. There has been no decrease in anything. The gyro has the most calories but still so many people order it.**

Please estimate the percentage of discussions per day that a customer has about the calories on the menu (either mentioned directly to you or someone else) during the point of purchase at your register. **About 2.10 talk about the calories**

Is there a particular age group that you think discusses the calories at the point of purchase more than others while looking at the menu board? **late 20s to early 30s**

Is there a gender that discusses calories more than others? **Female**

What are the most common conversations and questions that customers have about the calories listed on the menu while ordering their food? **The calories listed for the pita and what they include (it's the pita and the meat without toppings), people are confused and don't know what the calories include. They ask what does that include and want more specification.**

Is there any confusion about the number of calories listed by the menu item? **There are confused about what that includes.**

How often would you say you think someone changes their mind at the point of purchase because the item they wanted had too many calories? **About 2/10 change their mind. If they are interested in a breakfast item they may change it because they are high calorie items and if it is a gyro they may change their mind because it has too many calories.**

If you offered to downsize the order by cutting it in half (so the consumer would cut consumption of calories in half), do you think this would be effective? **Yes, and we just did that. We have a thing thing where we are now offering small pitas. This have less calories. Elderly people like this and people on diets. It has half the meat and the pitas are small.**

What percentage of your customer's request a smaller portion (because the portion size is too large) than what comes with the meal? **About 4/10. The new smaller pitas are really popular because of this. They definitely want a smaller size.**

What percentages of your orders come from your top 5 highest calorie items on the menu? **40%**

Do you believe that the menu labels enact behavior change?

- a. If you do, why do you think this? **Yes. People can see how many calories it includes in front of them and they can be more cautious.**

What have customers communicated about the format of providing nutritional information on menus? (i.e.- “healthy choice” symbols, displaying total caloric intake needs or presenting items in order of caloric content) **not much. She thinks theirs is pretty straight forward.**

Do you think menu labeling has increased in effectiveness over time? If so, why? **Ya, I think so. A little bit at a time.**

Interview #4
Panera-Indiana

Since posting the calories on your menu board, have you seen an increase or decrease in a particular item on your menu? **An increase in salads and soups.**

Please estimate out of every 10 conversations that a customer has about the calories on the menu (either mentioned directly to you or someone else) during the point of purchase at your register. **About 3/10 conversations**

Is there a particular age group that you think discusses the calories at the point of purchase more than others while looking at the menu board? **20s-30s**

Is there a gender that discusses calories more than others? **Female**

What are the most common conversations and questions that customers have about the calories listed on the menu while ordering their food? **They ask why something has so many calories or which amount of calories is it for the item that they are ordering.**

Is there any confusion about the number of calories listed by the menu item? **Yes, they mix it up with the price.**

How often would you say you think someone changes their mind at the point of purchase because the item they wanted had too many calories? **Not very many. About 1/20**

If you offered to downsize the order by cutting it in half (so the consumer would cut consumption of calories in half), do you think this would be effective? **Yes**

What percentage of your customer's request a smaller portion (because the portion size is too large) than what comes with the meal? **About 2/10. We have a half and half deal they can also take advantage of.**

What percentages of your orders come from your top 5 highest calorie items on the menu? **About 50 % of our items.**

Do you believe that the menu labels enact behavior change?

- a. If you do, why do you think this? **Yes. We think its good idea to post the calories and it does have an effect on certain customers.**

What have customers communicated about the format of providing nutritional information on menus? (i.e.- "healthy choice" symbols, displaying total caloric intake needs or presenting items in order of caloric content). **Maybe we could have a separate**

part of the menu with health choices and we think that is a good way to display the nutritional information

Do you think menu labeling has increased in effectiveness over time? If so, why? Yes for certain people. Some people no matter what will never pay attention.

Interview #1
Chipotle- New York

Since posting the calories on your menu board, have you seen an increase or decrease in a particular item on your menu? **Decrease in chips. When people see that it has 500 calories they say they don't need it. They ask how many calories are in it sometimes and why. The chips have 570 calories alone and the guacamole has 170.**

Please estimate the percentage of discussions per day that a customer has about the calories on the menu (either mentioned directly to you or someone else) during the point of purchase at your register. **2/10**

Is there a particular age group that you think discusses the calories at the point of purchase more than others while looking at the menu board? **30s-40s**

Is there a gender that discusses calories more than others? **Female**

What are the most common conversations and questions that customers have about the calories listed on the menu while ordering their food? **They ask how many calories are in the food even though it's posted for them to see**

Is there any confusion about the number of calories listed by the menu item? **No confusion, even with the ranges (Chipotle does not give an exact amount usual it's in ranges like 560-650 calories)**

How often would you say you think someone changes their mind at the point of purchase because the item they wanted had too many calories? **2/10 change their mind**

If you offered to downsize the order by cutting it in half (so the consumer would cut consumption of calories in half), do you think this would be effective? **Yes, because they love chips but say the calories are too much so maybe a smaller bag of chips would work.**

What percentage of your customer's request a smaller portion (because the portion size is too large) than what comes with the meal? **4/10 customers, they say they want a half scoop of this, a little of that when it comes to the toppings to try and limit the calories**

What percentages of your orders come from your top 5 highest calorie items on the menu? **90% are from burritos which is the highest calorie item.**

Do you believe that the menu labels enact behavior change?

- a. If you do, why do you think this? **Yes. Because it lets people know the calorie intake and helps people who are on a diet**

What have customers communicated about the format of providing nutritional information on menus? (i.e.- "healthy choice" symbols, displaying total caloric intake needs or presenting items in order of caloric content). **They don't understand it sometimes so they ask for a paper copy**

Do you think menu labeling has increased in effectiveness over time? If so, why? **yes**

Interview #2
Panera- New York

Since posting the calories on your menu board, have you seen an increase or decrease in a particular item on your menu? **Since she has been working here there has been an increase in veggie options like black bean soup, garden veggie soup, Mediterranean veggie.**

Please estimate the percentage of discussions per day that a customer has about the calories on the menu (either mentioned directly to you or someone else) during the point of purchase at your register. **3 or 4 out of 10. They usually think the calories are the price and so that is what they discuss with her the most**

Is there a particular age group that you think discusses the calories at the point of purchase more than others while looking at the menu board? **Yes, for sure. Mostly around ages 30-40.**

Is there a gender that discusses calories more than others? **Female**

What are the most common conversations and questions that customers have about the calories listed on the menu while ordering their food? **They usually ask if the item has so many calories because of dressing or sauces and they question why there are so many calories**

Is there any confusion about the number of calories listed by the menu item? **Mixup in price, they think the calories are the price**

How often would you say you think someone changes their mind at the point of purchase because the item they wanted had too many calories? **They usually don't change that often. They usually deduct the calories and then continue with their order**

If you offered to downsize the order by cutting it in half (so the consumer would cut consumption of calories in half), do you think this would be effective? **They sell half size for half. They don't sell half unless its in the you pick two. They count calories in half because of their program you pick two.**

What percentage of your customer's request a smaller portion (because the portion size is too large) than what comes with the meal? **See above**

What percentages of your orders come from your top 5 highest calorie items on the menu? **30% maybe**

Do you believe that the menu labels enact behavior change?

- a. If you do, why do you think this? **She thinks with people having it in their face that people are way more conscious of it because it's in their face. If people don't see it they usually don't think twice about how many calories are in it.**

What have customers communicated about the format of providing nutritional information on menus? (i.e.- "healthy choice" symbols, displaying total caloric intake needs or presenting items in order of caloric content) **no feedback**

Do you think menu labeling has increased in effectiveness over time? If so, why? **She doesn't know if this is a town legislation or a county legislation. She thinks it makes people choose healthier.**

Interview #3
Panera- New York

Since posting the calories on your menu board, have you seen an increase or decrease in a particular item on your menu? **It's been like this for so long. Yes, salads and veggies did increase but not significantly. If they are comparing two things, they usually choose the item with the least amount of calories.**

Please estimate out of every 10 conversations that a customer has about the calories on the menu (either mentioned directly to you or someone else) during the point of purchase at your register. **2 or 3 mention it and sometimes out of confusion**

Is there a particular age group that you think discusses the calories at the point of purchase more than others while looking at the menu board? **Older ages. 65+, they want low sodium as opposed to looking at the total number of calories. People ages 20-30 are more concerned with the total number of calories**

Is there a gender that discusses calories more than others? **Female**

What are the most common conversations and questions that customers have about the calories listed on the menu while ordering their food? **Most of the time they don't know what the numbers are. Our You pick 2 item has 2 numbers and they ask why are there 2 numbers next to the same item?**

Is there any confusion about the number of calories listed by the menu item? **Yes, they don't know what the two numbers stand for and mix it up with the price sometimes**

How often would you say you think someone changes their mind at the point of purchase because the item they wanted had too many calories? **2/10 change their mind**

If you offered to downsize the order by cutting it in half (so the consumer would cut consumption of calories in half), do you think this would be effective? **We do have people that just want half portions but we don't encourage it bc of value.**

What percentage of your customer's request a smaller portion (because the portion size is too large) than what comes with the meal? **1/10 people.**

What percentages of your orders come from your top 5 highest calorie items on the menu? **60% or 6/10 of the orders. The most popular items are still the most caloric items including the Broccoli Cheddar, the Turkey, Bravo is very popular here as well.**

Do you believe that the menu labels enact behavior change?

- a. If you do, why do you think this? **Yes.**

What have customers communicated about the format of providing nutritional information on menus? (i.e.- "healthy choice" symbols, displaying total caloric intake needs or presenting items in order of caloric content). **I think they would prefer a menu in an easier format.**

Do you think menu labeling has increased in effectiveness over time? If so, why? **Yes**
but I think people are immune to it now.

Interview #4
Quiznos- New York

Since posting the calories on your menu board, have you seen an increase or decrease in a particular item on your menu? **If the sub comes with bacon they choose not to get it. They recognize that it probably has more calories in it because it has bacon. So a decrease in items with bacon in it.**

Please estimate out of every 10 conversations that a customer has about the calories on the menu (either mentioned directly to you or someone else) during the point of purchase at your register. **4 or 5/10.**

Is there a particular age group that you think discusses the calories at the point of purchase more than others while looking at the menu board? **No teenagers ask about it. Ages 25-35 and senior citizens don't ask about the total calories but more about exactly what is in it.**

Is there a gender that discusses calories more than others? **No, pretty even.**

What are the most common conversations and questions that customers have about the calories listed on the menu while ordering their food? **In their situation, they think that the calories are the price. Sometimes they comment on that's almost what I'm supposed to have in a whole day.**

Is there any confusion about the number of calories listed by the menu item? **They aren't really confused they usually just ask why the calorie number is so high. She hasn't had any official training on why there are so many calories but she says she tells them it's usually because of the dressings.**

How often would you say you think someone changes their mind at the point of purchase because the item they wanted had too many calories? **They usually ask questions and then make up their mind.**

If you offered to downsize the order by cutting it in half (so the consumer would cut consumption of calories in half), do you think this would be effective? **Yes, people are pretty receptive to lowering calories.**

What percentage of your customer's request a smaller portion (because the portion size is too large) than what comes with the meal? **5/10. Most of the time its people who were going to get a bigger sub and then change their mind to a smaller sub.**

What percentages of your orders come from your top 5 highest calorie items on the menu? **60% - 70% of the orders. There are still a lot of orders from our highest calorie items including Prime Rib, the Angus and the French Dip.**

Do you believe that the menu labels enact behavior change?

- a. If you do, why do you think this? **Yes- she thinks the customers appreciate it.**

What have customers communicated about the format of providing nutritional information on menus? (i.e. - “healthy choice” symbols, displaying total caloric intake needs or presenting items in order of caloric content). **Nothing.**

Do you think menu labeling has increased in effectiveness over time? If so, why? **Since she has started working here they have always noticed it. It is something she sees happening more each year.**

Interview #5

Five Guys- New York

Since posting the calories on your menu board, have you seen an increase or decrease in a particular item on your menu? **An increase in a “little fry” because we used to just have regular or large fries and increase in the little burgers instead of the regular burgers.**

Please estimate out of every 10 conversations that a customer has about the calories on the menu (either mentioned directly to you or someone else) during the point of purchase at your register. **Majority of the time, nobody talks about the calories.**

Is there a particular age group that you think discusses the calories at the point of purchase more than others while looking at the menu board? **No**

Is there a gender that discusses calories more than others? **Females**

What are the most common conversations and questions that customers have about the calories listed on the menu while ordering their food? **They usually ask why there are so many more calories in the regular fries compared to the small fries. The large fry has 953 calories and the little fry has 526 calories.**

Is there any confusion about the number of calories listed by the menu item? **no**

How often would you say you think someone changes their mind at the point of purchase because the item they wanted had too many calories? **Not very often.**

If you offered to downsize the order by cutting it in half (so the consumer would cut consumption of calories in half), do you think this would be effective? **Yes, that is why Five Guys added the little fry about a year ago because a lot of people stopped ordering fries because of how many calories were in them.**

What percentage of your customer’s request a smaller portion (because the portion size is too large) than what comes with the meal? **3/10 customers, maybe a little bit more than this.**

What percentages of your orders come from your top 5 highest calorie items on the menu? **75%. One of the most popular items is the bacon cheeseburger and 75% of orders will have either bacon or cheese on it.**

Do you believe that the menu labels enact behavior change?

- a. If you do, why do you think this? **A little bit, if you start opening your eyes.**

What have customers communicated about the format of providing nutritional information on menus? (i.e.- “healthy choice” symbols, displaying total caloric intake needs or presenting items in order of caloric content). **If his menu was complete with all the calories listed, he likes the calories listed how they are.**

Do you think menu labeling has increased in effectiveness over time? If so, why? **A little bit, ya, it depends on the person**

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CURRICULUM VITAE

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EDUCATION

Indiana University, MA, May 2015

Thesis: A Qualitative Analysis of Calorie Menu Labeling: Point of Sale Conversations with Cashiers at Fast-Casual Restaurants

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The University of Alabama, BA, May 2008

Cum Laude, Communication and Information Sciences (specialization in Public Relations)

Minor: Computer Science and Psychology

PROFESSIONAL EXPERIENCE

Indiana University Purdue University Indianapolis (IUPUI); Aug. 2011 – Sept. 2014
Assistant Director of Undergraduate Admissions

- Recruited domestic nonresident students into undergraduate programs in a specific assigned targeted recruitment territory to create a more diversified campus
- Served as admissions liaison for the IU Herron School of Art and Design and the IU School of Education to aid in reaching recruitment goals through marketing initiatives, events and social media recruitment
- Developed recruitment / communications plans via CRM and direct mail to recruit new students for the institute
- Managed admission recruitment activities through conducting and organizing direct contact, school presentations, college fairs, and informational meeting programs targeting local and national markets

Indiana State University;

Sept. 2009 – Aug. 2011

Admissions Counselor/Recruiter in Undergraduate Admissions

- Recruited the largest incoming freshman class in school history which resulted in a 33% increase in freshman enrollment for Fall 2010 and a 4% increase of transfer students

- Wrote content for admissions event invitations, outreach and marketing campaigns
- Managed several admissions events including Experience ISU (for admitted students), Sycamore Start Up. Assisted with New Student Orientation and LEAP (opportunity program for at-risk students).
- Implemented ISU social media marketing and engagement strategies for recruitment
- Extensively trained by the Walt Disney Institute to enhance customer service skills

Dittoe Public Relations;
Account Executive

May 2007 – May 2009

- Provided targeted public relations campaigns for industries including technology, SEO, business-to-business, and City of Indianapolis
- Developed stories that targeted national and local media outlets
- Pitched, scheduled and conducted logistics of trade shows
- Managed product launches from conception to completion

HONORS AND AWARDS

Outstanding Graduate Paper Award, IUPUI, April 2015

Carol D. Nathan Staff Council Scholarship Award-Staff Scholar, IUPUI, September 2014

President PRSSA, University of Alabama, 2007-2008

Communication and Information Science Ambassador, University of Alabama, 2006-2008

RESEARCH AND TEACHING EXPERIENCE

Indiana University Purdue University Indianapolis (IUPUI);

Fall 2013-present

Associate Communications Faculty

- Teach R110, The Fundamentals of Public Speaking
- Utilize several learning technology systems including LMS (Canvas and OnCourse) as well as Echo360 and Adobe Connect
- Received a grant through Gateway to Graduation for a *New York Times* online subscription for each student to aid in topic selection for speeches, research and overall learning techniques

CONFERENCE PAPERS

Bechtel, K.B. (2014, April). *The Affordable Care Act: Why the menu calorie labeling law will decrease obesity rates overtime.* Paper presented at 105th Annual Eastern Communication Conference, Providence, RI.

CONFERENCE PRESENTATIONS

Bechtel, K.B. & Bright, M.A. (2014, March). *Confessions of a Public Speaker - Don't Become Tuned Out to the Plugged In Generation*. Presentation at the 33rd Annual Spring Conference of the Kentucky Association of Admissions College Counseling, Lexington, KY.

Bechtel, K.B. & Forster, R. (2014, April). *Confessions of a Public Speaker: Improving the Admission Presentation*. Presentation at the Missouri Association for College Admission Counseling and the Great Plains Association for College Admissions Counseling, Kansas City, MO.